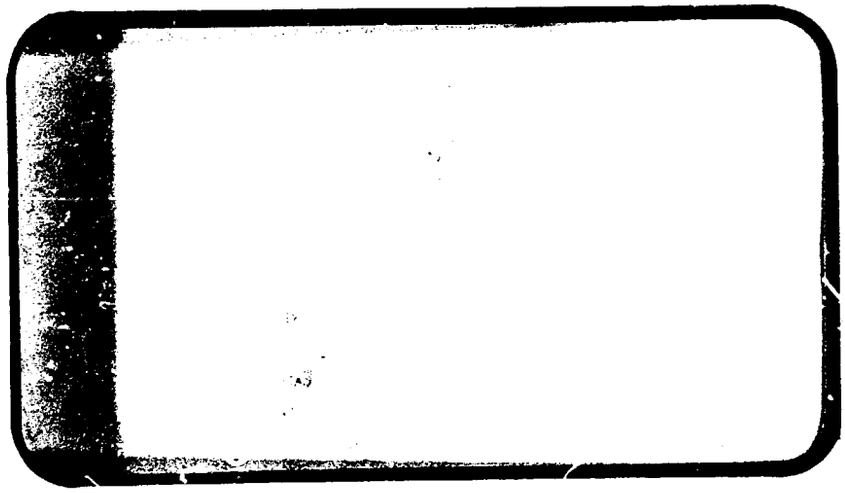
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

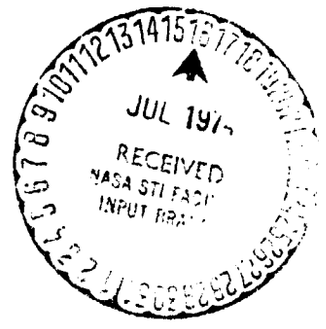
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

April, 1974

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RESULTS OF AN AERODYNAMIC FORCE AND MOMENT INVESTIGATION OF AN 0.015-SCALE CONFIGURATION 3 SPACE SHUTTLE ORBITER IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (0A58)

By

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Prepared under NASA Contract Number NAS9-13247

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Engineering Analysis Division

Johnson Space Center
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Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number	ARC 3.5-163
NASA Series Number:	OA58
Test Dates:	6/4/73 - 6/8/73

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This document has been reviewed and is approved for release.

For N. D. Kemp
Data Management Services

Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

RESULTS OF AN AERODYNAMIC FORCE AND MOMENT INVESTIGATION OF AN 0.015-SCALE CONFIGURATION 3 SPACE SHUTTLE ORBITER IN THE NASA/ARC 3.5-FOOT HYPERSONIC WIND TUNNEL (0A58)

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T. J. Dziubala, Rockwell International
J. W. Cleary, NASA/Ames

ABSTRACT

Tests were conducted on a 0.015-scale model of the Space Shuttle Vehicle Configuration 3 Orbiter in the Ames Research Center 3.5-Foot Hypersonic Wind Tunnel. The primary objective of the test was to obtain stability and control data for the basic configuration and an alternate configuration. Pitch runs were made with 0° of sideslip at Mach numbers of 5.3, 7.3 and 10.3. Six-component force data and fuselage base pressures were recorded for each run. Shadowgraph pictures were taken at selected points. Model 420 was used for these tests.

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	5
CONFIGURATIONS INVESTIGATED	9
TEST FACILITY	11
TESTING AND PROCEDURE	12
DATA REDUCTION	14
TABLES	
1. TEST CONDITIONS	16
2. DATA SET COLLATION SHEETS	17
3. MODEL DIMENSIONAL DATA	19
MODEL FIGURES	30
DATA FIGURES	44
APPENDIX	
TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

Figure	Title	Page
1	Axis systems.	30
2(a)	Configuration Diagram.	31
2(b)	Location of base pressure taps.	32
3	Model photographs and shadowgraphs.	
(a)	General installation side view	33
(b)	Top view of model	34
(c)	Shadowgraph of Configuration 139 at Mach 7.32 $\alpha = 25°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	35
(d)	Shadowgraph of Configuration 139 at Mach 7.32 $\alpha = 28°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	36
(e)	Shadowgraph of Configuration 139B at Mach 5.26 $\alpha = 28°$ $\delta_e = -44°$ $\delta_{BF} = -14.25°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	37
(f)	Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = -44°$ $\delta_{BF} = -14.25°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	38
(g)	Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	39
(h)	Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = 11°$ $\delta_{BF} = 13.75°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	40
(i)	Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30°$ $\delta_e = -44°$ $\delta_{BF} = -14.25°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	41
(j)	Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	42
(k)	Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30°$ $\delta_e = 11°$ $\delta_{BF} = 13.75°$ $\delta_{SB} = 55°$ $\delta_R = 0°$	43

INDEX OF DATA FIGURES

FIGURE NUMBER	TITLE	COEFFICIENT SCHEDULE	VARYING PARAMETERS	PAGE NUMBER
Fig. 4	Configuration - 139B Elevon Effectiveness at Mach 5.3	A, B, C	ELEVON, DE	1-35
Fig. 5	Configuration - 139B Elevon Effectiveness at Mach 7.3	A, B, C	ELEVON, BDFLAP, DE	36-70
Fig. 6	Configuration - 139B Elevon Effectiveness at Mach 10.3	A, B, C	ELEVON, BDFLAP, DE	71-99
Fig. 7	Configuration - 139B Body Flap Effectiveness at Mach 7.3	A, B, D	BDFLAP, DBF	100-146
Fig. 8	Configuration - 139B Body Flap Effectiveness at Mach 10.3	A, B, D	BDFLAP, DBF	147-181
Fig. 9	Configuration - 139 Elevon Effectiveness at Mach 5.3	A, B, C	ELEVON, DE	182-216
Fig. 10	Configuration - 139 Elevon Effectiveness at Mach 7.3	A, B, C	ELEVON, BDFLAP, DE	217-263
Fig. 11	Configuration - 139 Elevon Effectiveness at Mach 10.3	A, B, C	ELEVON, BDFLAP, DE	264-298
Fig. 12	Configuration - 139 Body Flap Effectiveness at Mach 7.3	A, B, D	BDFLAP, DBF	299-345
Fig. 13	Configuration - 139 Body Flap Effectiveness at Mach 10.3	A, B, D	BDFLAP, DBF	346-380

INDEX OF DATA FIGURES (Concluded)

COEFFICIENT SCHEDULE:

A: CL, CN, CD, CDF, L/D, CA, CAF, CAB VS ALPHA

CLMFWD, CLMAFT, XCP/L VS ALPHA

CL VS CD, CL VS CLMFWD, CN VS CLMFWD

B: DCL, DCN, DCD, DCDF, DCA, DCAF, DCAB VS ALPHA

DCLMFD, DCLMAT VS ALPHA

C: DCL, DCN, DCD, DCA, DCLMFD, DCLMAT VS DE

D: DCL, DCN, DCD, DCA, DCLMFD, DCLMAT VS DBF

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$
		Reference & C.G. Definitions
Ab		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
l_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
		Stability-Axis System
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

In addition to the standard notation, the following are special to this test.

SYMBOL	SADSAC SYMBOL	DEFINITION
$C_{p_{B_i}}$		fuselage base pressure coefficient.
$C_{p_{B_M}}$		OMS pod base pressure coefficient.
P_{B_i}		fuselage base pressure.
P_{B_M}		OMS pod base pressure.
X_{cp}/ℓ_B	XCP/L	nondimensional center of pressure.
$C_{m_{fwd}}$	CLMFWD	pitching moment coefficient about forward center of gravity location.
$C_{m_{aft}}$	CLMAFT	pitching moment coefficient about aft center of gravity location.
ΔC_A	DCA	incremental axial-force coefficient, algebraic difference of two runs.
ΔC_D	DCD	incremental drag coefficient, algebraic difference of two runs.
ΔC_L	DCL	incremental lift coefficient, algebraic difference of two runs.
ΔC_N	DCN	incremental normal-force coefficient, algebraic difference of two runs.
ΔC_{D_f}	DCDF	incremental forebody drag coefficient, algebraic difference of two runs.
ΔC_{A_f}	DCAF	incremental forebody axial force coefficient, algebraic difference of two runs.
ΔC_{A_b}	DCAB	incremental base axial force coefficient, algebraic difference of two runs.
$\Delta C_{m_{fwd}}$	DCLMFD	incremental pitching moment about forward C.G., algebraic difference of two runs.

NOMENCLATURE (Concluded)

SYMBOL	SADSAC SYMBOL	DEFINITION
$C_{m_{aft}}$	DCLMAT	incremental pitching moment about aft C.G., algebraic difference two runs.
δ_{BF}	BDFLAP	body flap, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_e	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_R	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge left; degrees.
δ_{SB}	SPDBRK	speed brake, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{SB} = (\delta_{R_L} + \delta_{R_R})/2$, positive deflection; degrees.
$\Delta\delta_e$	DE	incremental elevon deflection angle, algebraic difference of two runs.
$\Delta\delta_{BF}$	DBF	incremental body flap deflection angle, algebraic difference of two runs.

CONFIGURATIONS INVESTIGATED

The test specimen for this investigation was an 0.015-scale representation of the Configuration 3 Space Shuttle Orbiter. It was constructed of Armco 17-4 stainless steel with individual components and variable control surface deflections as follows:

Component	Definition
B_{17}	Basic vehicle configuration 3 (139) fuselage of the Rockwell International Space Shuttle vehicle (SSV) orbiter configuration (VL70-000139)
B_{19}	Alternate vehicle configuration 3 (139B) fuselage of the Rockwell International SSV orbiter configuration (VL70-000139B)
C_7	Basic vehicle configuration 3 (139) canopy (VL70-000139)
E_{22}	Elevon on basic vehicle configuration 3 (139) wing (VL70-000139); deflections tested were δ_e = 0°, 11° and -44°
E_{23}	Elevon on alternate vehicle configuration 3 (139B) wing (VL70-000139B), deflections tested were δ_e = 0°, 11° and -44°
F_5	Basic vehicle configuration 3 (139) body flap (VL70-000139), deflections tested were δ_e = 0°, 13.75° and -14.25°
M_4	Basic OMS-RCS pod for the Rockwell International SSV configuration 3 (VL70-000139B)
R_5	Basic vehicle configuration 3 (139) rudder for vertical tail (VL70-000139); deflections tested were δ_R = 0° and δ_{SB} = 54.92°
V_7	Basic vehicle configuration 3 vertical tail (VL70-000139)
W_{103}	Basic vehicle configuration 3 (139) wing (VL70-000139)

W_{107}	Alternate vehicle configuration 3 (139B) wing (VL7G-000139B)

Two different orbiter configurations were investigated which were constructed of model components as follows:

O_{139}	Complete orbiter configuration B_{17} C_7 F_5 M_4 V_7 R_5 W_{103} E_{22}
O_{139B}	Complete orbiter configuration B_{19} C_7 F_5 M_4 V_7 R_5 W_{107} E_{23}

Figure 2 shows the general orbiter configuration. Detailed model component descriptions and dimensional data are given in table 3.

TEST FACILITY

The NASA-Ames 3.5-Foot Hypersonic Wind Tunnel is a closed-circuit, blowdown-type tunnel capable of operating at nominal Mach numbers of 5, 7, and 10 at pressures to 1800 psia and temperatures to 3400°R for run times to four minutes. The major components of the facility include a gas storage system where the test gas is stored at 3000 psi, a storage heater filled with aluminum-oxide pebbles capable of heating the test gas to 3400°R, axisymmetric contoured nozzles with exit diameters of 42 inches for generating the desired Mach number, and a 900,000 ft^3 vacuum storage system which operates to pressures of 0.3 psia. The test section itself is an open-jet type enclosed within a chamber approximately 12-feet in diameter and 40-feet in length, arranged transversally to the flow direction.

A model support system is provided that can pitch models through an angle-of-attack range of -20 to +18 degrees, in a vertical plane, about a fixed point of rotation on the tunnel centerline. This rotation point is adjustable from 1 to 5 feet from the nozzle exit plane. The model normally is out of the test stream (strut centerline 37-inches from tunnel centerline) until the tunnel test conditions are established after which it is inserted. Insertion time is adjustable to as little as 1/2 second and models may be inserted at any strut angle.

A high-speed, analog-to-digital data acquisition system is used to record test data on magnetic tape. The present system is equipped to measure and record the outputs from 80 transducers in addition to 20 channels of tunnel parameters.

TESTING AND PROCEDURE

The 0.015-scale model of the configuration 3 orbiter (model 42C) was sting-mounted from the smaller of the two available model support struts in the Ames Research Center (ARC) 3.5-Foot Hypersonic Wind Tunnel. A Task Corporation MK IID 1.5-inch diameter internal strain gauge balance was supplied by ARC to measure six-component model loads. The capacities of the balance are presented in table 1. A 0.25-inch thick glass/silicon sleeve thermally insulated the balance from the fuselage.

Rockwell sting W-1101-S supported the balance from the strut. All runs were made with the sting at 3.5 inches below tunnel centerline. This sting is provided with interchangeable bent adapters just behind the balance socket which enable high angles of attack to be achieved. Adapters with 10°, 40° and 50° pitch angles with 0° sideslip were employed in this test.

An in-tunnel check of the balance sensitivities and sting deflections was performed prior to the start of the test. The results indicated that these quantities were essentially unchanged from those determined in a previous orbiter test, OA11B.

Four, one-sixteenth-inch ID, stainless steel tubes were routed along the sting to sense pressures at the base of the model. These pressures were measured by individual Stathem 0-5 psia transducers located in the model support strut.

To achieve a pitch range of -3 to 52°, two separate runs were required using the 10° and 40° bent sting adapters. Runs made with the 10°

adapter were swept in order of ascending angle of attack, whereas runs with the 40° adapter were started at the maximum angle of attack and then swept downward. The latter approach was deemed necessary in order to have a minimum back pressure in the tunnel vacuum spheres during the period of maximum blockage, thus reducing the possibility of unstarting the tunnel. This procedure was followed for runs 1 to 23. However, a significant amount of scatter in the high angle of attack results, particularly in the axial force data, prompted an investigation of the effect of pitching in the direction of ascending angles. Runs 24 to 28 were made in that manner and indicated a reduced degree of data scatter. Mach 10 data did not exhibit the scatter phenomena and so runs 29 to 38 were made in order of descending angles to alleviate the unstart problem.

Shadowgraph photos were taken at selected test conditions.

DATA REDUCTION

Standard ARC methods were used to compute aerodynamic coefficient data in body and stability axes. Figure 1 describes these axis systems.

Base pressures for the fuselage and OMS pods were computed as follows:

$$C_{p_B} = \left(\sum_{i=3}^{4} C_{p_{B_i}} + C_{p_{B_M}}\right)/3$$

$C_{p_{B_i}}$ = fuselage base pressure coefficient = $\dfrac{P_{B_i} - P_o}{q}$

$C_{p_{B_M}}$ = OMS pod base pressure coefficient = $\dfrac{P_{B_M} - P_o}{q}$

where

P_B = measured average pressure at fuselage base, psia

P_{B_i} = measured pressure at various points on fuselage base, psia (see figure 2(b))

P_{B_M} = measured pressure at OMS pod base, psia

P_o = free-stream static pressure, psia

q = free-stream dynamic pressure, psi

Base axial-force coefficient was computed as follows:

$$C_{A_b} = -\frac{C_{p_B}}{S_w}(A_B + A_{B_M} + A_{SC})$$

Forebody axial force coefficient was computed as follows:

$$C_{A_f} = C_A - C_{A_b}$$

Center-of-pressure location in percent of body length was computed as follows:

$$X_{cp}/\ell_B = (X_{C.G.} - \frac{C_m \bar{c}_w}{C_N})/\ell_B$$

where

$X_{C.G.}$ = location of reference center of gravity aft of model nose, inches

ℓ_B = body length, inches

Two lift-to-drag ratios, based on stability axes data, were computed as follows:

Using C_A, $L/D = C_L/C_D$

Using C_{A_f}, $L/D_f = C_L/C_{D_f}$

Reference Dimensions and Constants

Symbol	Definition	Value
A_B	Fuselage base area, OMS pods on	0.045 ft^2
A_{B_M}	OMS pod area (two pods)	0.019 ft^2
A_{SC}	Sting cavity base area	0.034 ft^2
b_w	Span, wing	14.050 in
CG X	Reference C.G.	12.577 in
CG Z	Reference C.G.	FRL (Z=6.00)
$\bar{c}_w$	MAC, wing	7.122 in
ℓ_B	Reference body length	19.35 in
S_w	Area, wing (ref.)	0.605 ft^2

TABLE 1.

TEST : 0A58 (ARC 3.5-163) DATE : JUNE, 1973

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Rankine)
5.3	1.4×10^6	375	1200
7.3	2.5×10^6	530	1200
10.3	1.7×10^6	330	2000

BALANCE UTILIZED: ARC 1.5-inch Task Corp. MK IID

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE
NF_{FWD}	500 lb	± 1/2%	
NF_{AFT}	500 lb	± 1/2%	
AF	300 lb	± 1/2%	
YF_{FWD}	250 lb	± 1/2%	
YF_{AFT}	250 lb	± 1/2%	
RM	800 in-lb	± 1/2%	

COMMENTS:

TABLE 2.

TEST: OA58 (ARC 3.5 163) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 6/4 thru 6/8/73

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δe	δBF	δSB	δR	NO. OF RUNS	MACH NUMBERS 5.3	7.3	10.3	TEST RUN NUMBERS
RBY001	$B_A C_7 M_4 F_5 W_{07} V_7 E_{23} R_5$	A	0	0	-11.25	54.92	0	2	17	24		
02		C							20	12		
03		A		-4.4					18	23		
04		B						1			32	
05		C						2	19	22		
06		A		11	13.75			1		27		
07		B									28	
08		C								14		
09		A		0	0					25		
10		B									31	
11		C								11		
12		A			13.75					26		
13		B									33	
14		C								13		
15		B			11.25						30	
16	$B_{11} C_7 M_4 F_5 W_{103} V_7 E_{22} R_5$	A				54.92		2	15	3		
17		B						1			35	
18		C								8		

XBY---: 1 CN 7 CA 13 CLM 19 CL 25 CD 31 L/D 37 XCP/L 43 CP1 49 CP3 55 CP4 61 67 75 76

YBY---: CYI CYN CBL

α OR β SCHEDULES — COEFFICENTS

α: A= 27 THRU 52, Δα = 3
B= 0 THRU 40, Δα = 5

C = -3 THRU 30, Δα = 3

(DVAR (1)) (DVAR (2))

TABLE 2. - Concluded.

TEST : OA58 (ARC 3.5 163) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE : 6/4 THRU 6/8/73

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_{BF}	δ_{SB}	δ_R	NO. OF RUNS	MACH NUMBERS 5.3	7.3	10.3	TEST RUN NUMBERS
RBY019	$B_{17}C_7M_4F_5W_{103}V_5E_{22}R_5$	A	0	-44	-14.25	54.92	0	2	16	4		
20		B						1			34	
21		C								10		
22		A		11	13.75					5		
23		B									38	
24		C								6		
25		A		0	0					1		
26		B									36	
27		C								9		
28		A			13.75					2		
29		B									37	
30		C								7		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

α OR β SCHEDULES — COEFFICENTS

α: A= 27 THRU 52, Δα = 3
B= 0 THRU 40, Δα = 5

C = -3 THRU 30, Δα = 3

TABLE 3. - MODEL DIMENSIONAL DATA

Model Component: Body (B_{17})

General Description: Fuselage, Configuration 3, lightweight orbiter per Lines Drawing VL70-000139

Scale model = 0.015

Drawing Number: VL70-000139

Dimensions:	Full-Scale	Model Scale
Length ~ in.	1290.3	19.35450
Max width ~ in.	267.6	4.0140
Max depth ~ in.	244.5	3.66750
Fineness ratio	4.82175	4.82175
Area ~ ft^2		
Max cross-sectional	386.67	0.08700
Planform		
Wetted		
Base		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Body (B_{19})

General Description: Fuselage, Configuration 3, lightweight orbiter per Lines Drawing VL70-000139B

Note: Identical to B_{17} except forebody Model scale = 0.015

Drawing Number: VL70-000139B

Dimensions:	Full-Scale	Model Scale
Length ~ in.	1290.3	19.35450
Max width ~ in.	267.6	4.0140
Max depth ~ in.	244.5	3.66750
Fineness ratio	4.82175	4.82175
Area ~ ft^2		
Max cross-sectional	386.67	0.08700
Planform		
Wetted		
Base		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Canopy (C7)

General Description: Configuration 3 per Lines Drawing VL70-000139.
Insufficient information to complete dimensional data at this time.
Model scale = 0.015

Drawing Number: VL70-000139

Dimensions:	Full-Scale	Model Scale
Length (sta fwd bulkhead) - in.	432.70	6.4905
Max width (TE bulkhead) - in.	571.40	8.5710
Max depth (WPZ_o = to Z_o = 501) - in.		
Fineness ratio		
Area - ft^2		
Max cross-sectional		
Planform		
Wetted		
Base		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Elevon (E_{22})

General Description: Configuration 3 per W_{103} Lines Drawing VL70-000139 data for 1 of 2 sides.

Model scale = 0.015

Drawing Number: VL70-000139

Dimensions:	Full-Scale	Model Scale
Area - ft^2	205.52	0.04624
Span (equivalent) - in.	353.34	5.30010
Inbd equivalent chord - in.	114.78	1.72170
Outbd equivalent chord - in.	55.00	0.8250
Ratio movable surface chord/ total surface chord		
At inbd equiv chord	0.208	0.208
At outbd equiv chord	0.400	0.400
Sweepback angles - deg		
Leading edge	0.00	0.00
Trailing edge	-10.24	-10.24
Hinge line	0.00	0.00
Area moment (normal to hinge line) - ft^3	1548.07	0.00522

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Elevon (E_{23})

General Description: Configuration 3 per W107 Rockwell Lines Drawing VL70-000139B data for 1 of 2 sides.

Model scale = 0.015

Drawing Number: VL70-000139B

Dimensions:	Full-Scale	Model Scale
Area - ft^2	205.52	0.04624
Span (equivalent) - in.	353.34	5.30010
Inbd equivalent chord - in.	114.78	1.72170
Outbd equivalent chord - in.	55.00	0.8250
Ratio movable surface chord/ total surface chord		
At inbd equiv chord	0.208	0.208
At outbd equiv chord	0.400	0.400
Sweepback angles - deg		
Leading edge	0.00	0.00
Trailing edge	-10.24	-10.24
Hinge line	0.00	0.00
Area moment (normal to hinge line) - ft^3	1548.07	0.00522

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Body flap (F_5)

General Description: Configuration 3 per Lines Drawing VL70-000139

Scale model = 0.015

Drawing Number: VL70-000139

Dimensions:	Full-Scale	Model Scale
Length - in.	84.70	1.2705
Max width - in.	267.6	4.0140
Max depth - in.		
Fineness ratio		
Area - ft^2		
Max cross-sectional		
Planform	142.5195	0.03207
Wetted	38.0958	0.00857
Base		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: OMS pod (M_4)

General Description: Lightweight Configuration 3 per Lines Drawing VL70-000139. Note: M_4 identical to M_3 of Configuration 2A except intersection to body. Scale model = 0.015

Drawing Number: VL70-000139

Dimensions:	Full-Scale	Model Scale
Length - in.	346.0	5.1900
Max width - in.	108.0	1.620
Max depth - in.	113.0	1.695
Fineness ratio		
Area - ft^2		
Max cross-sectional		
Planform		
Wetted		
Base		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Rudder (R_5)

General Description: Configurations 2A and 3 per Rockwell Lines Drawings VL70-000095 and VL70-000139

Model scale = 0.015

Drawing Number: VL70-000095, VL70-000139

Dimensions:

	Full-Scale	Model Scale
Area - ft^2	98.67	0.022
Span (equivalent) - in.	201.0	3.0150
Inbd equivalent chord - in.	91.585	1.37378
Outbd equivalent chord - in.	50.833	0.76249
Ratio movable surface chord/ total surface chord		
At inbd equiv chord	0.400	0.400
At outbd equiv chord	0.400	0.400
Sweepback angles - deg		
Leading edge	34.83	34.83
Trailing edge	26.25	26.25
Hinge line	34.83	34.83
Area moment (normal to hinge line) - ft^3	526.13	0.00178

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Vertical (V_7), lightweight orbiter configuration

General Description: Centerline vertical tail, double wedge airfoil with rounded leading edge

Model scale = 0.015

Drawing Number: VL70-000139, VL70-000095

Dimensions:	Full-Scale	Model Scale
Total Data		
Planform area (theo) ~ ft^2	425.92	0.09583
Span (theo) ~ in.	315.72	4.73580
Aspect ratio	1.675	1.675
Rate of taper	0.507	0.507
Taper ratio	0.404	0.404
Sweepback angles ~ deg		
Leading edge	45.000	45.000
Trailing edge	26.249	26.249
0.25 element line	41.130	41.130
Chords ~ in.		
Root (theo) WP	268.50	4.02750
Tip (theo) WP	108.47	1.62705
MAC	199.81	2.99715
Fus sta of 0.25 MAC	1463.50	21.9525
WP of 0.25 MAC	635.522	9.53283
BL of 0.25 MAC	0.0	0.00
Airfoil section		
Leading wedge angle ~ deg	10.000	10.000
Trailing wedge angle ~ deg	14.920	14.920
Leading edge radius ~ in.	2.00	0.0300
Void area ~ ft^2	13.17	0.00296
Blanketed area ~ ft^2		

TABLE 3. - MODEL DIMENSIONAL DATA - Continued.

Model Component: Wing (W_{103}), new lightweight orbiter

General Description: Orbiter configuration per Lines Drawing VL70-000139
Note: Dihedral angle is defined at the lower surface of the wing at the 75.33-percent element line projected into a plane perpendicular to the FRP. Scale model = 0.015

Test No. _____ Drawing No. VL70-000139

Dimensions:	Full-Scale	Model Scale
Total Data		
Planform area (theo) - ft^2	2690.00	0.60525
Span (theo) - in.	936.68	14.05020
Aspect ratio	2.265	2.265
Rate of taper	1.177	1.177
Taper ratio	0.200	0.200
Dihedral angle, - deg	3.500	3.500
Incidence angle, - deg	3.000	3.000
Aerodynamic twist, - deg	+3.000	+3.000
Sweepback angles, - deg		
Leading edge	45.000	45.000
Trailing edge	-10.24	-10.24
0.25 element line	35.209	35.209
Chords - in.		
Root (theo) at BP 0.0	689.24	10.33860
Tip (theo) at BP	137.85	2.06775
MAC	474.81	7.12215
Fus sta of 0.25 MAC	1136.89	17.05335
WP of 0.25 MAC	299.20	4.4880
BL of 0.25 MAC	182.13	2.73195
Exposed Data		
Area (theo) - ft^2	1752.29	0.39426
Span (theo) - in. (BP 108.0 to 468.341)	720.68	10.81020
Aspect ratio	2.058	2.058
Taper ratio	0.2451	0.2451
Chords - in.		
Root at BP 108.0	562.40	8.4360
Tip at $1.00\frac{b}{2}$	137.85	2.06775
MAC	393.03	5.89545
Fus sta of 0.25 MAC	1185.31	17.77965
WP of 0.25 MAC	300.20	4.5030
BL of 0.25 MAC	251.76	3.7764
Airfoil section (Rockwell mod NASA XXXX-64)		
Percent thickness at $0.425\frac{b}{2}$	0.10	0.10
Percent thickness at $1.00\frac{b}{2}$	0.12	0.12
Data for 1 of 2 sides		
Leading edge cuff		
Planform area - ft^2	120.33	0.02707
Leading edge intersects fus ML at sta - in.	560.0	8.40
Leading edge intersects wing at sta - in.	1035.0	15.5250

TABLE 3. - MODEL DIMENSIONAL DATA - Concluded.

Model Component: Wing (W_{107}), new lightweight orbiter

General Description: Orbiter Configuration 3 per Lines Drawing VL70-000139B

Note: Same as W_{103} except cuff, airfoil, and angle of incidence. Scale model = 0.015

Test No. _____ Drawing No. VL70-000139B

Dimensions:	Full-Scale	Model Scale
Total Data		
Planform area (theo) ~ ft^2	2690.0	0.60525
Span (theo) ~ in.	936.68	14.05020
Aspect ratio	2.265	2.265
Rate of taper	1.177	1.177
Taper ratio	0.200	0.200
Dihedral angle, ~ deg	3.500	3.500
Incidence angle, ~ deg	0.500	0.500
Aerodynamic twist, ~ deg	+3.000	+3.000
Sweepback angles, ~ deg		
Leading edge	45.000	45.000
Trailing edge	-10.24	-10.24
0.25 element line	35.209	35.209
Chords ~ in.		
Root (theo) at BP 0.0	689.24	10.33860
Tip (theo) at BP 468.341	137.85	2.06775
MAC	474.81	7.12215
Fus sta of 0.25 MAC	1136.89	17.05335
WP of 0.25 MAC	299.20	4.4880
BL of 0.25 MAC	182.13	2.73195
Exposed Data		
Area (theo) ~ ft^2	1752.29	0.39426
Span (theo) ~ in. (BP 108.0 to 468.341)	720.68	10.81020
Aspect ratio	2.058	2.058
Taper ratio	0.2451	0.2451
Chords ~ in.		
Root at BP 108.0	562.40	8.4360
Tip at $1.00\frac{b}{2}$	137.85	2.06775
MAC	393.03	5.89545
Fus sta of 0.25 MAC	1185.31	17.77965
WP of 0.25 MAC	300.20	4.5030
BL of 0.25 MAC	251.76	3.7764
Airfoil section (Rockwell mod NASA XXXX-64)		
Percent thickness at $\frac{b}{2}$	0.10	0.10
Percent thickness at $1.0\frac{b}{2}$	0.12	0.12
Data for 1 of 2 sides		
Leading edge cuff		
Planform area ~ ft^2	118.333	0.02662
Leading edge intersects fus ML at sta ~ in.	500	7.5000
Leading edge intersects wing at sta ~ in.	1083.4	16.2510

Notes:

1. Positive directions of force cofficients, moment coefficients, and angles are indicated by arrow
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

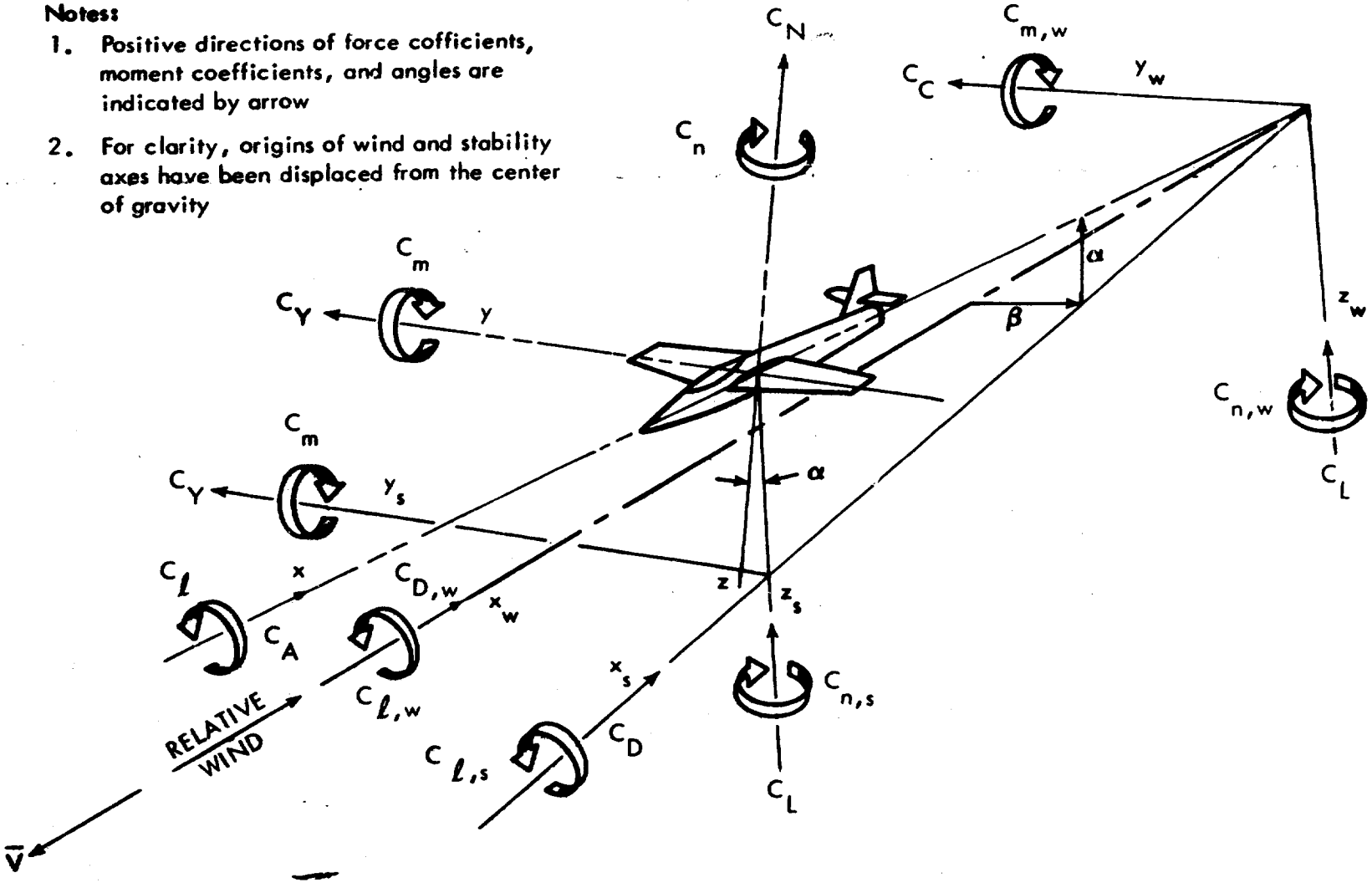
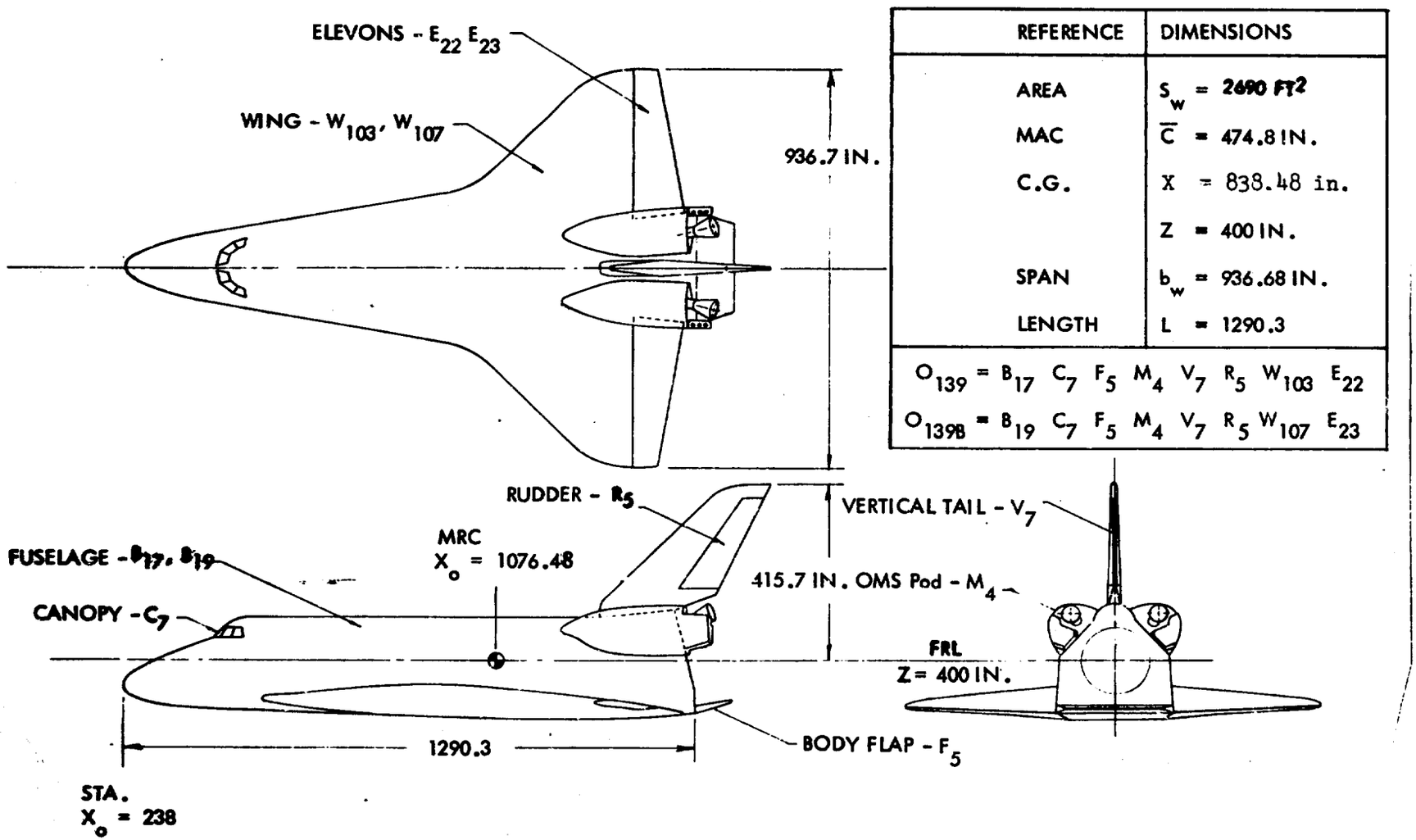


Figure 1. - Axis Systems.



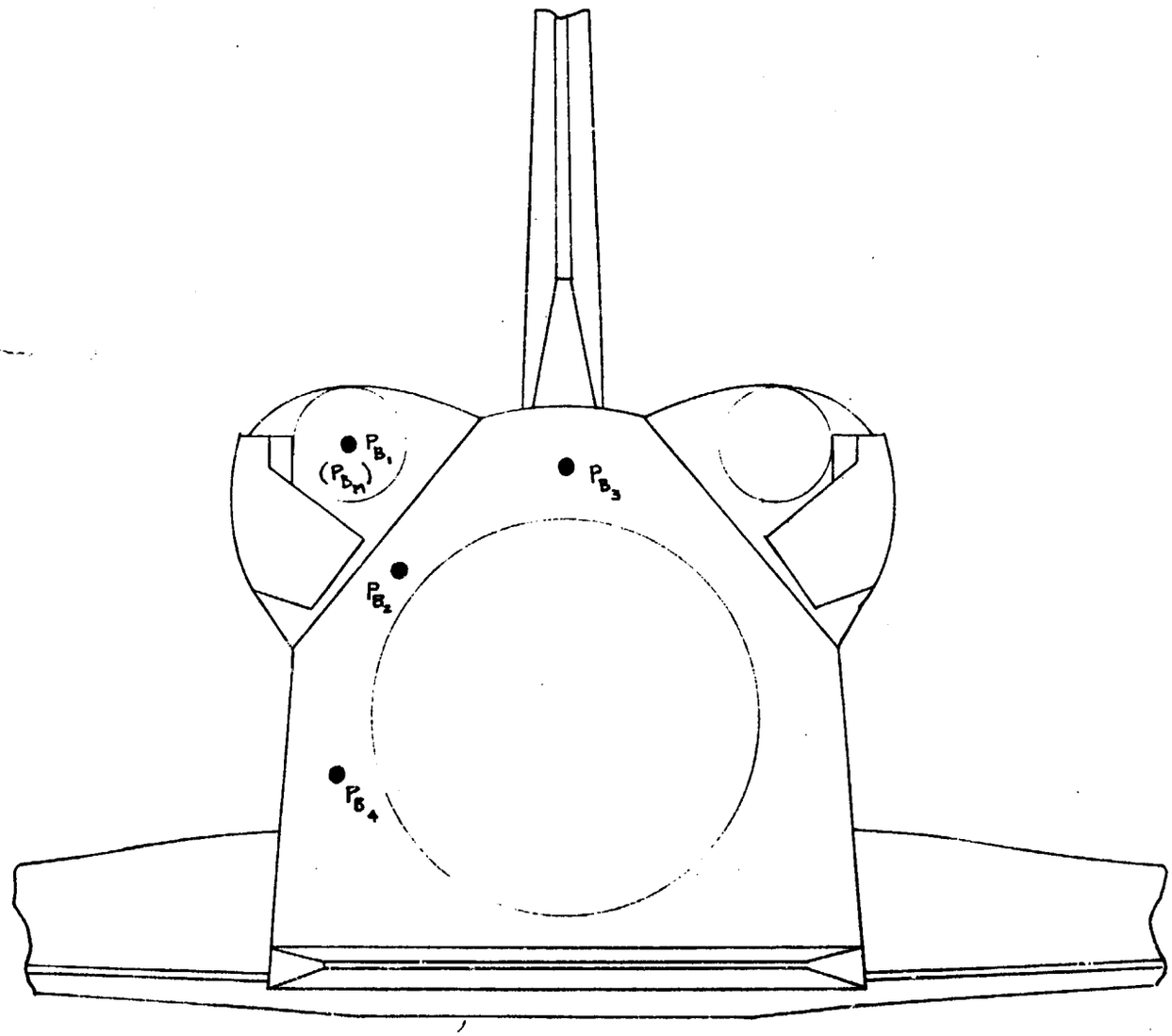
REFERENCE	DIMENSIONS
AREA	S_w = 2690 FT²
MAC	$\bar{C}$ = 474.8 IN.
C.G.	X = 838.48 in.
	Z = 400 IN.
SPAN	b_w = 936.68 IN.
LENGTH	L = 1290.3

$O_{139} = B_{17}\ C_7\ F_5\ M_4\ V_7\ R_5\ W_{103}\ E_{22}$

$O_{139B} = B_{19}\ C_7\ F_5\ M_4\ V_7\ R_5\ W_{107}\ E_{23}$

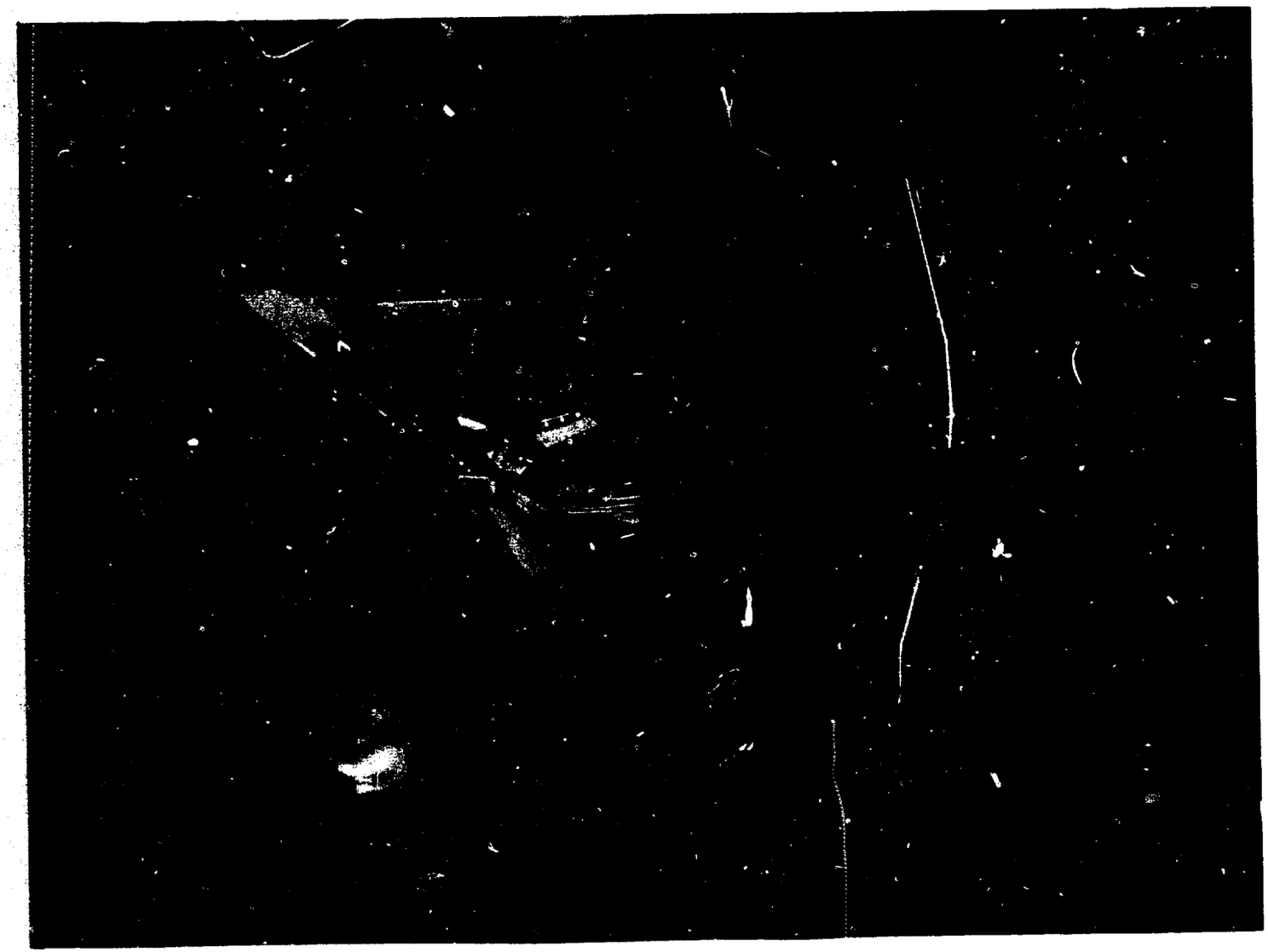
(a) Configuration Diagram

Figure 2.



(b) Location of Base Pressure Taps

Figure 2. - Concluded.



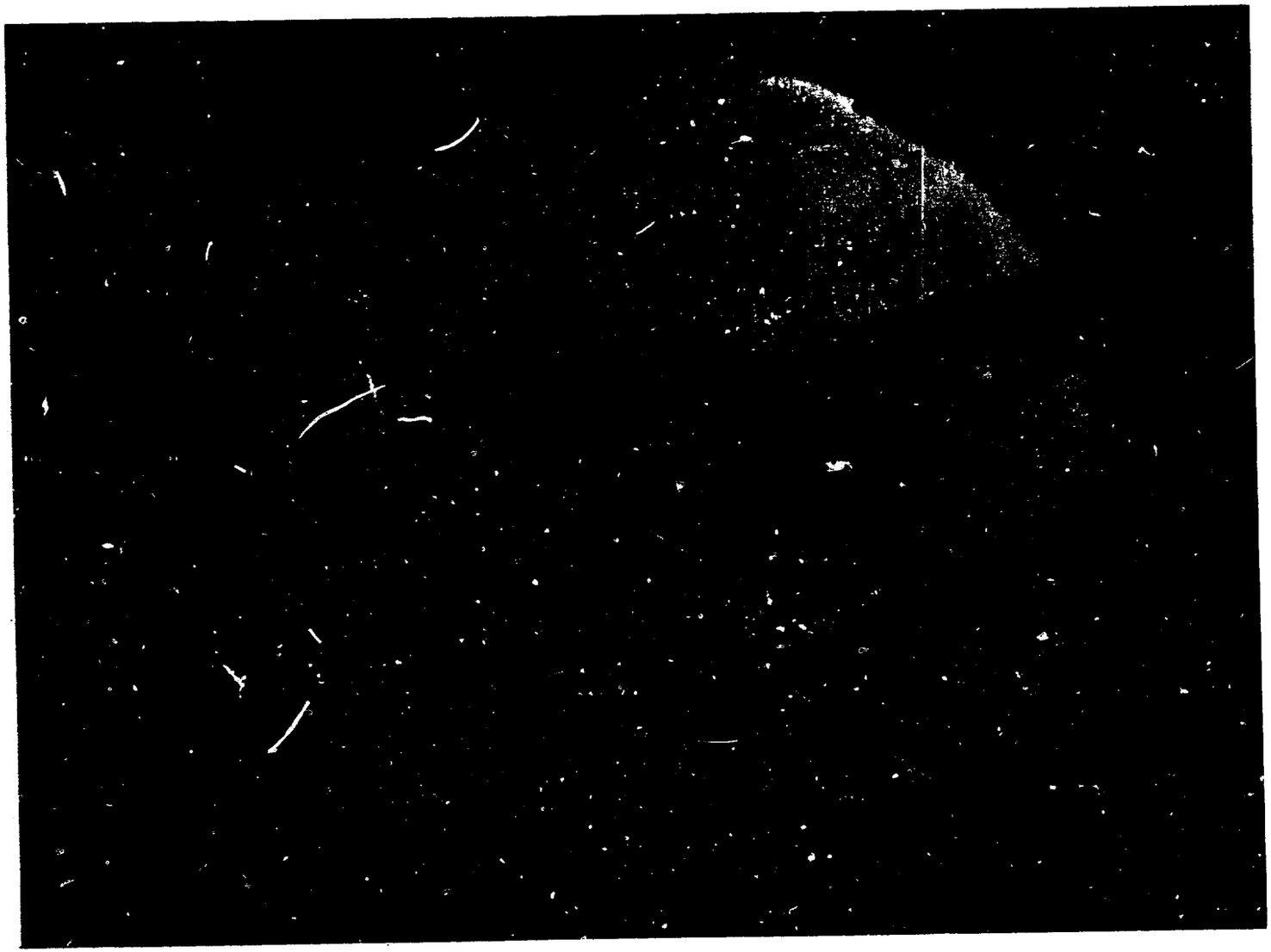
(a) General installation side view

Figure 3. - Model photographs.



(b) Top view of model

Figure 3. - Continued.



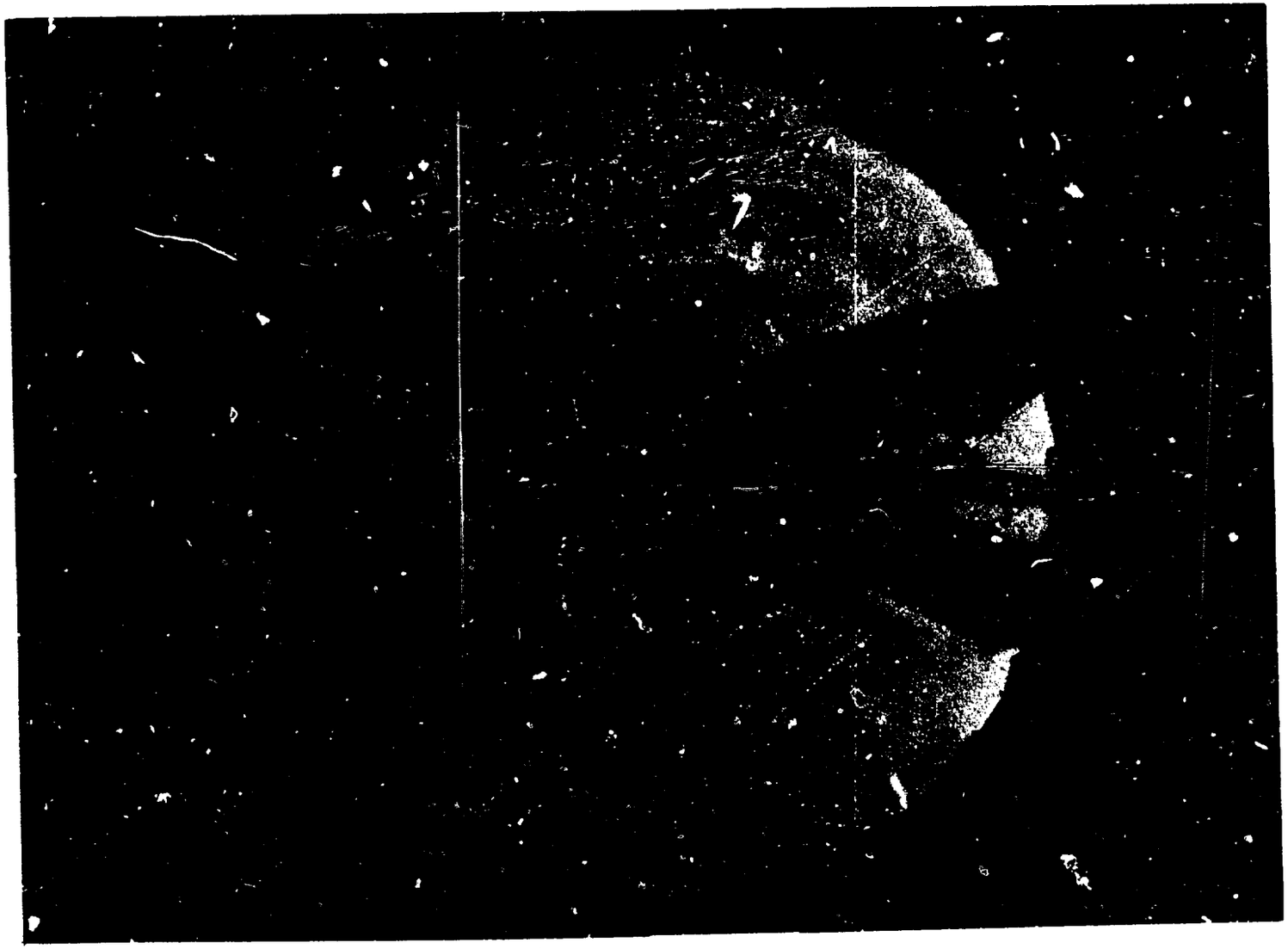
(c) Shadowgraph of Configuration 139 at Mach 7.32 $\alpha = 25°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



(d) Shadowgraph of Configuration 139 at Mach 7.32 $\alpha = 28°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



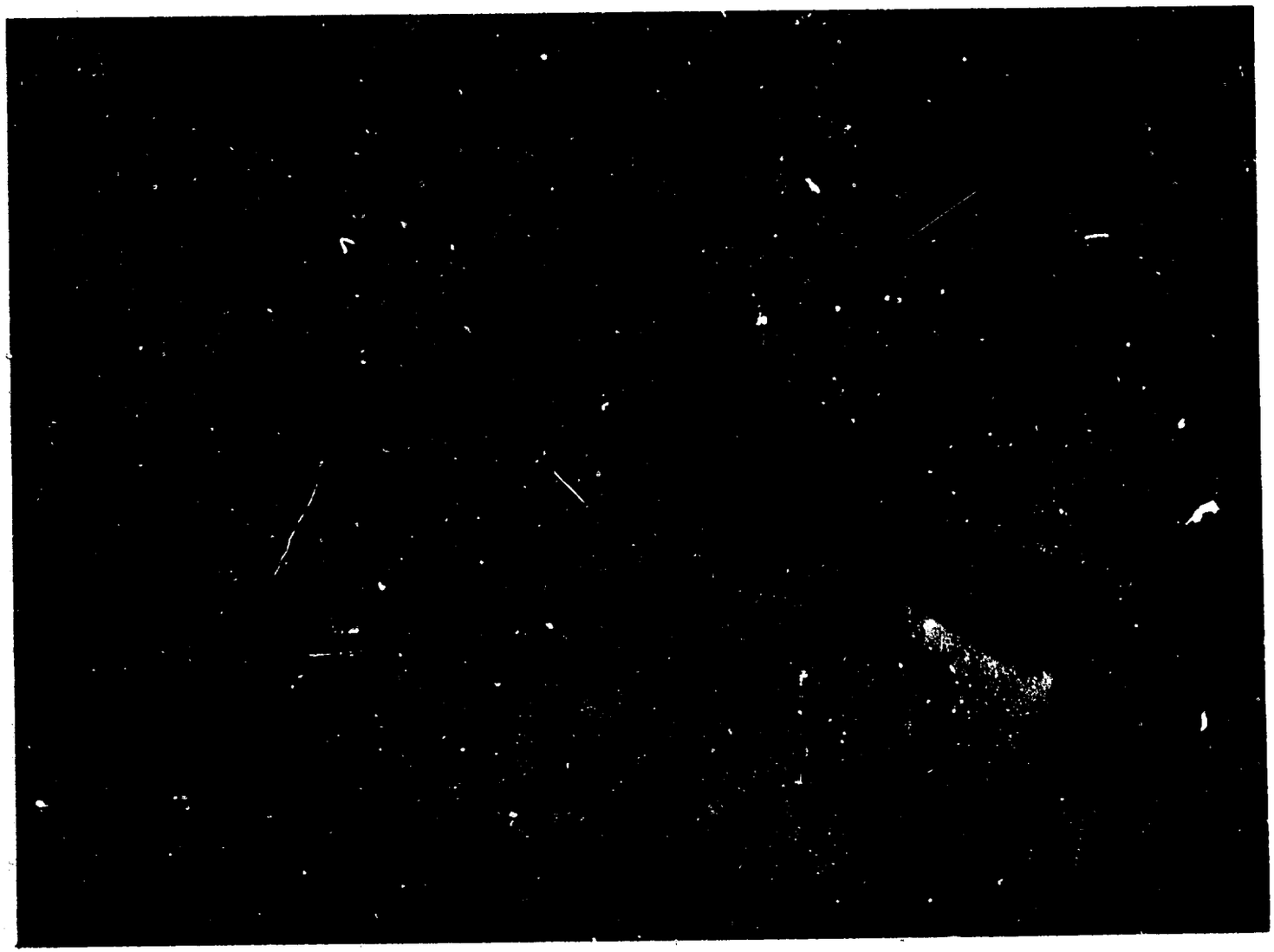
(e) Shadowgraph of Configuration 139B at Mach 5.26 $\alpha = 28°$ $\delta_e = -44°$ $\delta_{BF} = -14.25°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



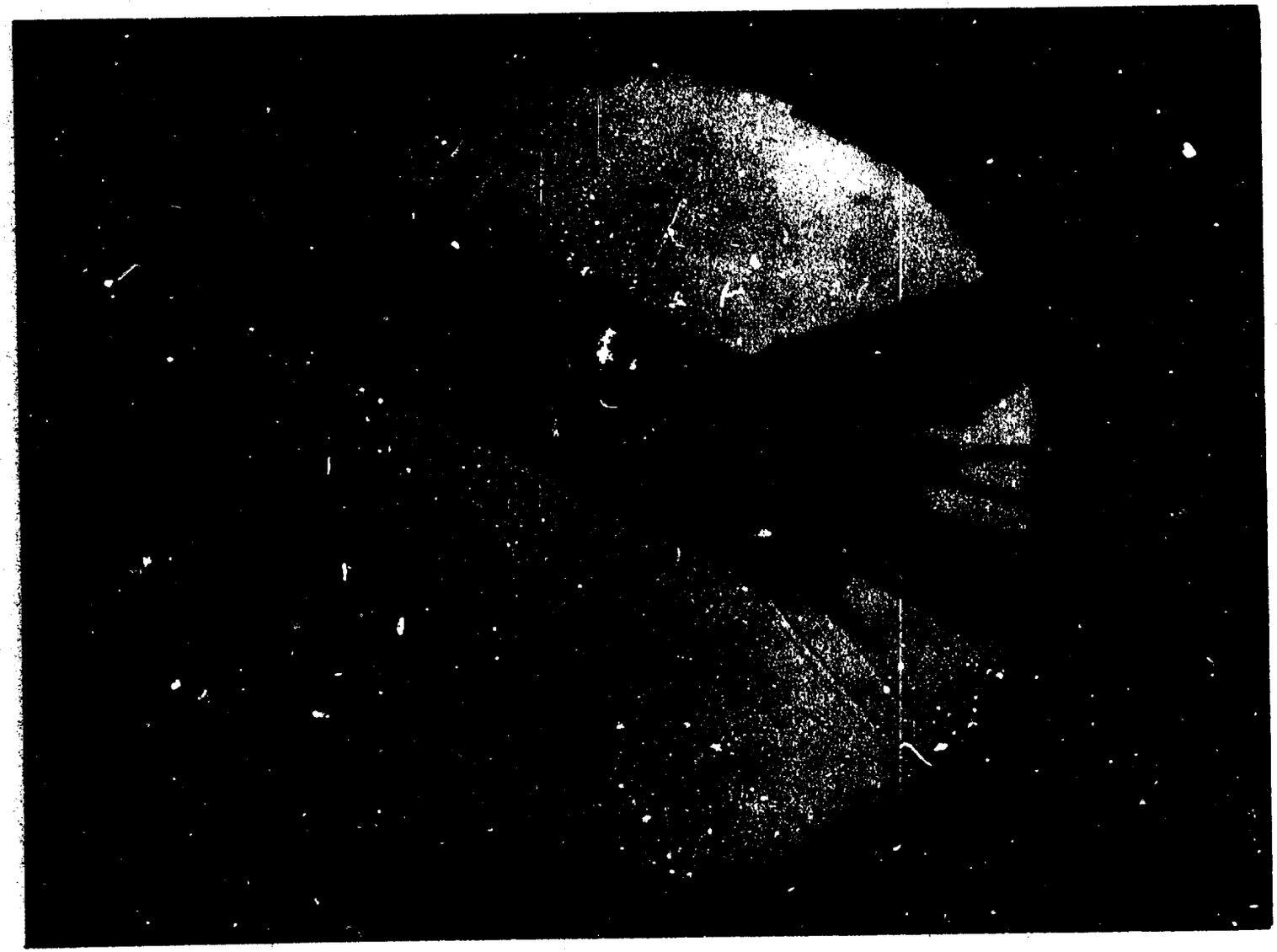
(f) Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = -44°$ $\delta_{BF} = -14.25°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



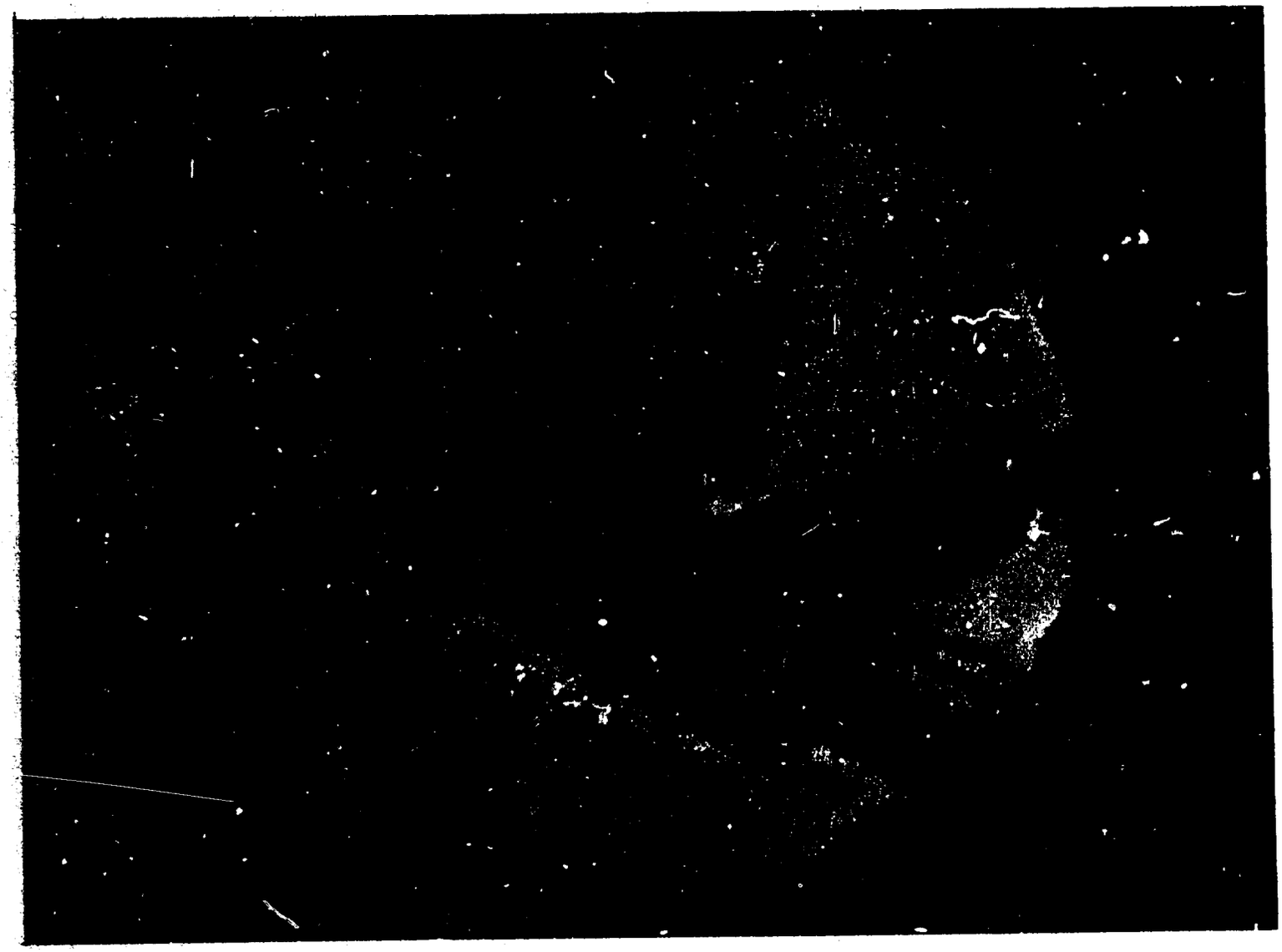
(g) Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = 0°$ $\delta_{BF} = 0°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



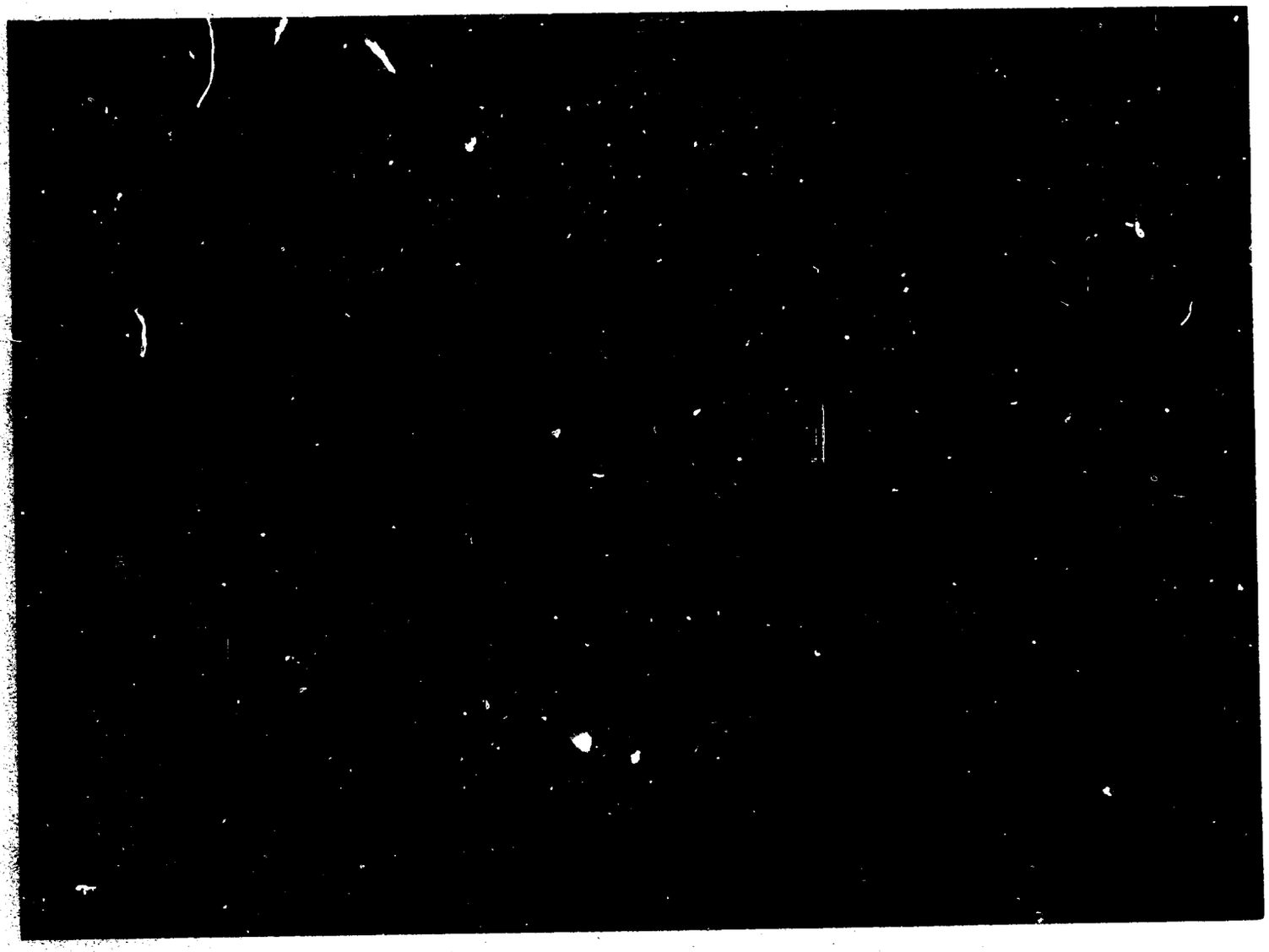
(h) Shadowgraph of Configuration 139B at Mach 7.32 $\alpha = 28°$ $\delta_e = 11°$ $\delta_{BF} = 13.75°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



(i) Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30°$ $\delta_e = -44°$ $\delta_{BF} = -14.25$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Continued.



(j) Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30^\circ$ $\delta_e = 0^\circ$ $\delta_{BF} = 0^\circ$ $\delta_{SB} = 55^\circ$ $\delta_R = 0^\circ$

Figure 3. - Continued.



(k) Shadowgraph of Configuration 139B at Mach 10.29 $\alpha = 30°$ $\delta_e = 11°$ $\delta_{BF} = 13.75°$ $\delta_{SB} = 55°$ $\delta_R = 0°$

Figure 3. - Concluded.

DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(JBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

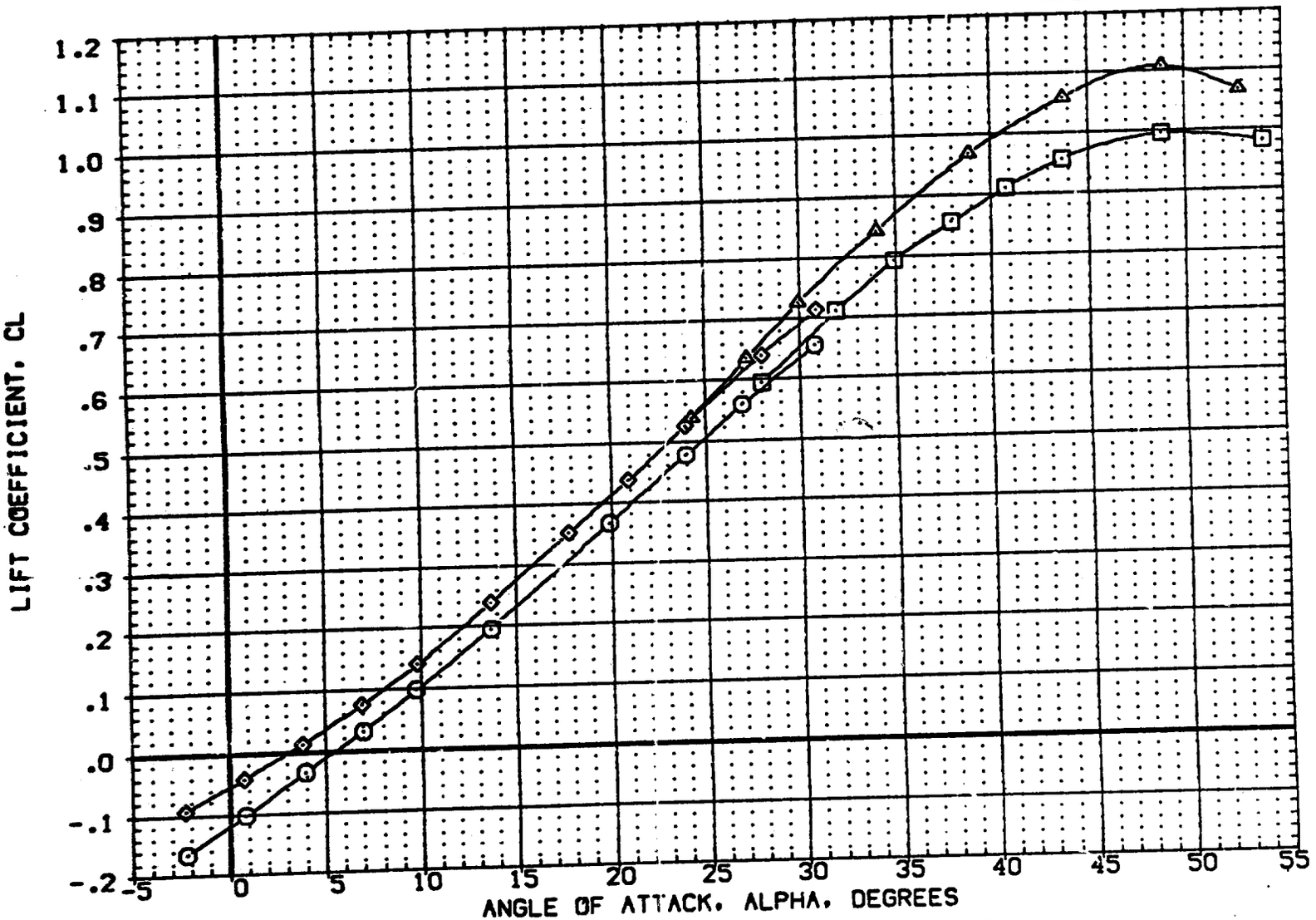


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY005)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

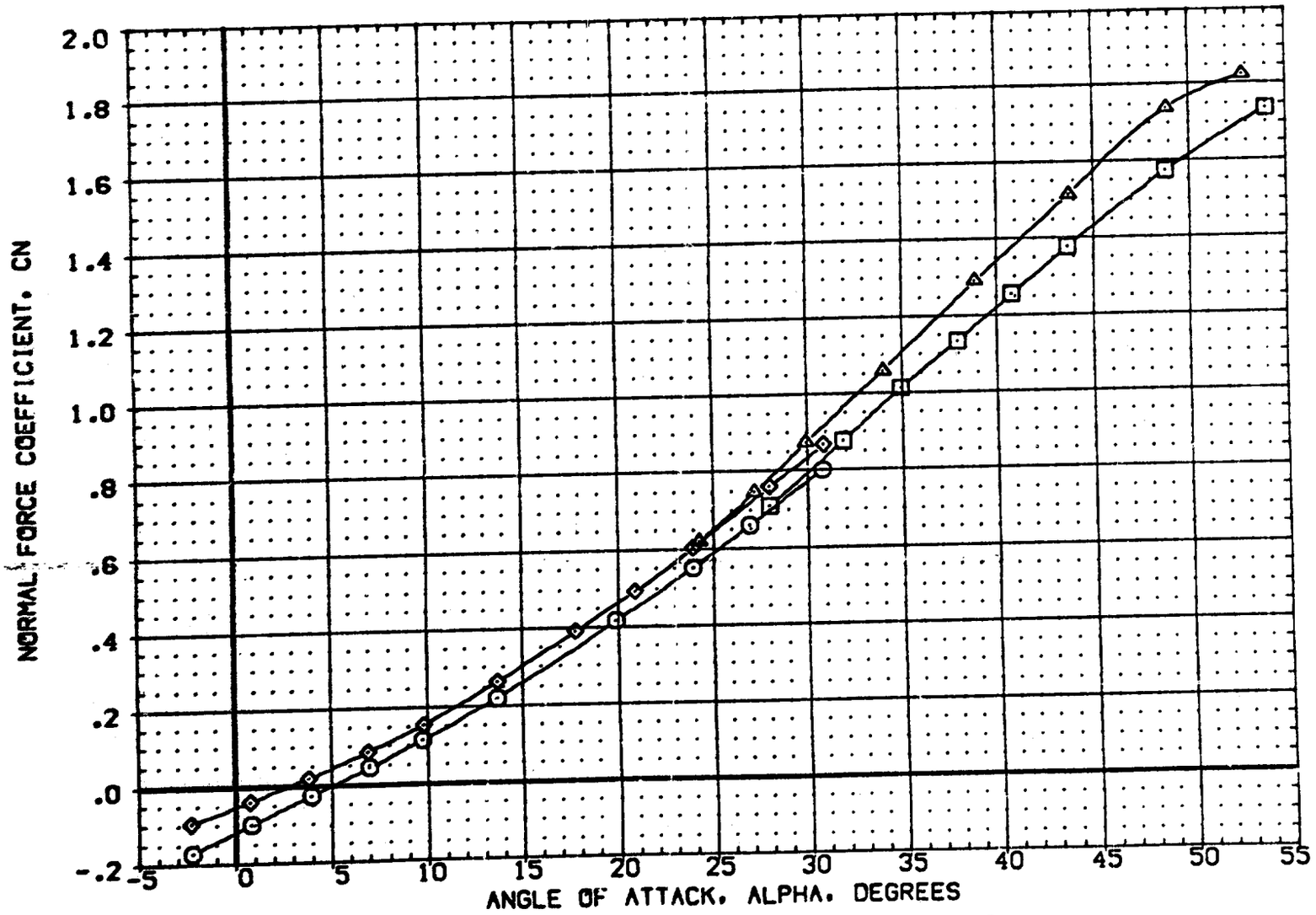


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
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LREF	7.1220	IN.
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XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

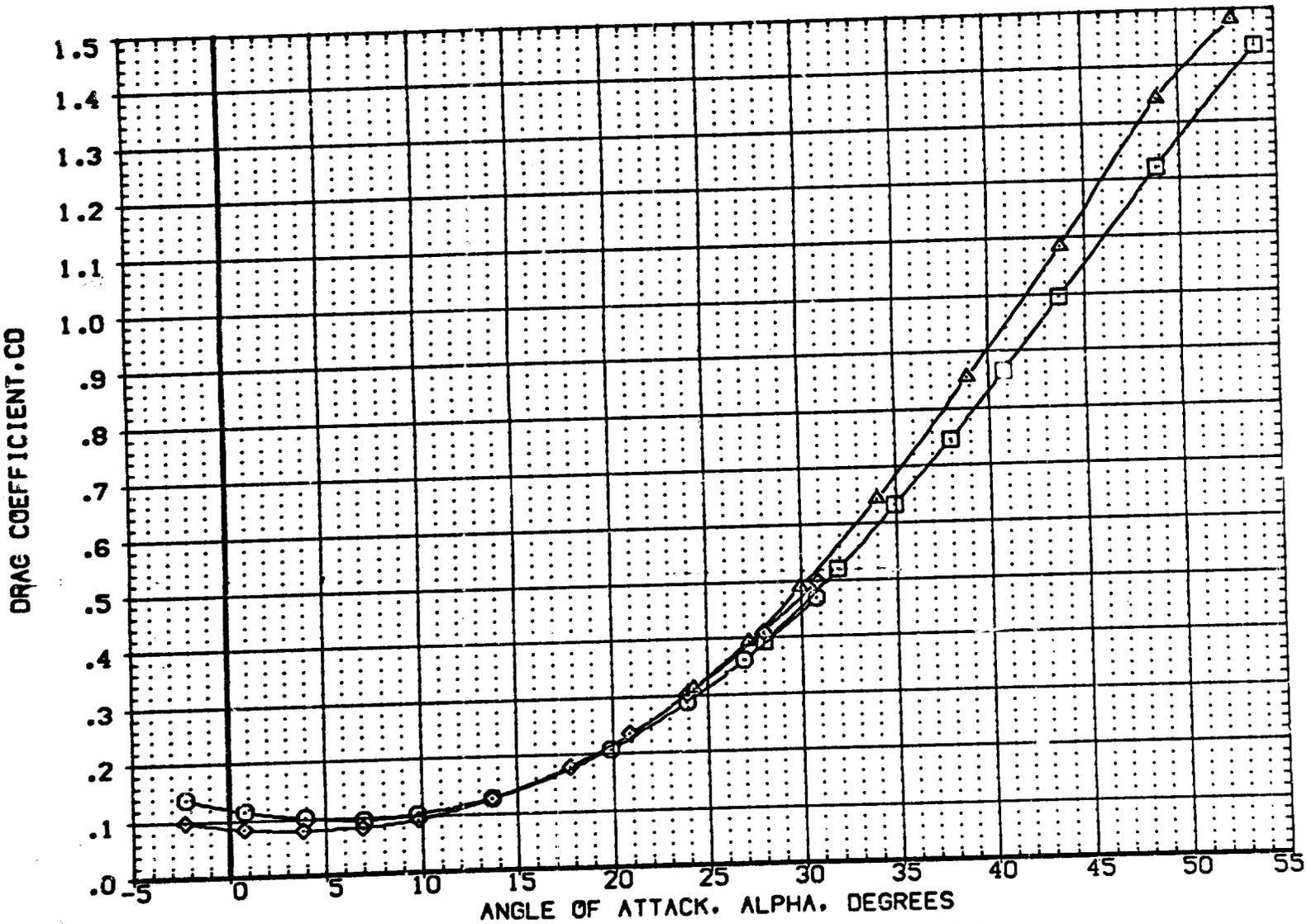


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY005)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	⊠	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
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ZMRP	6.0000	V.L.
SCALE	.0150	

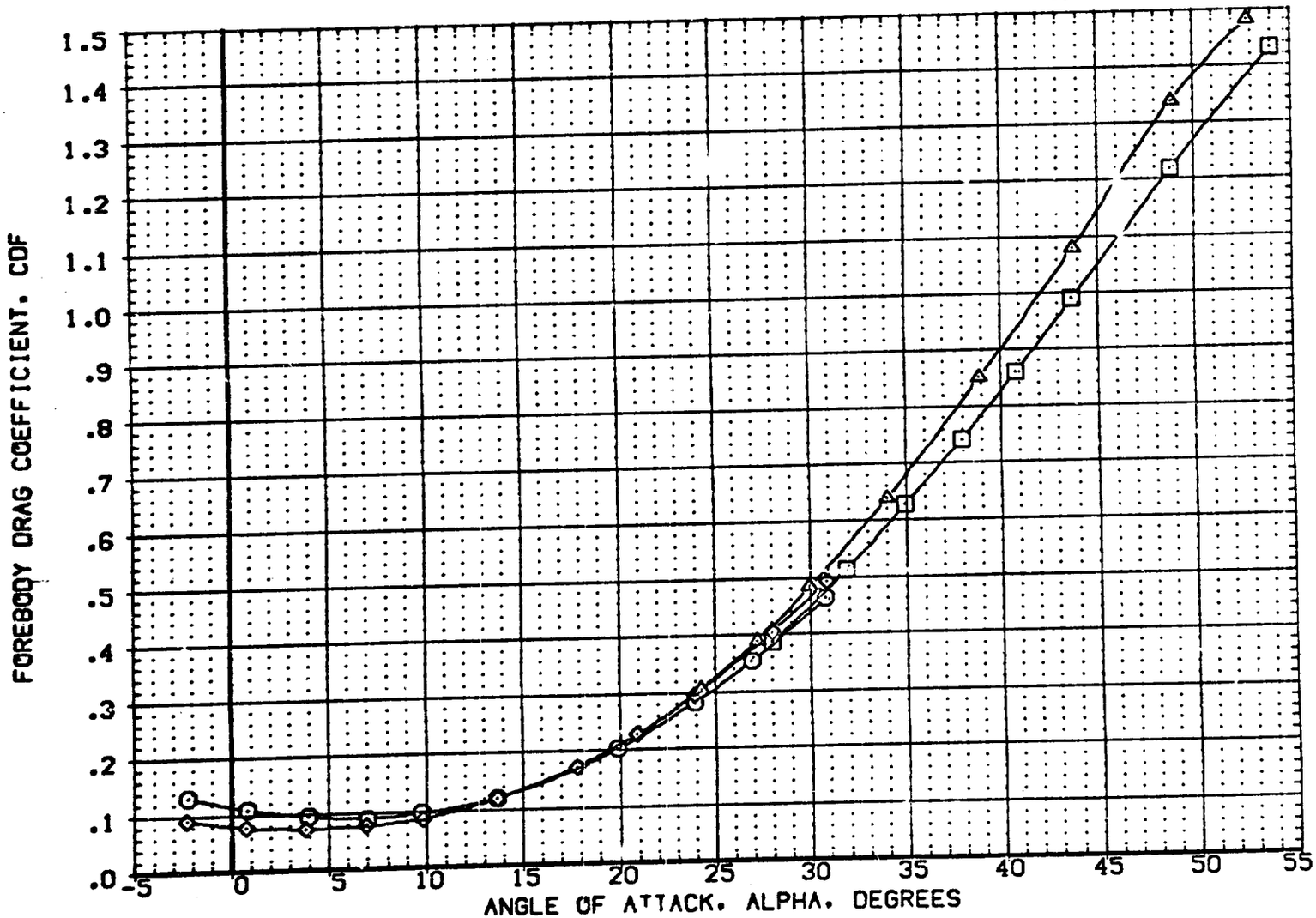


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY005)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
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YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

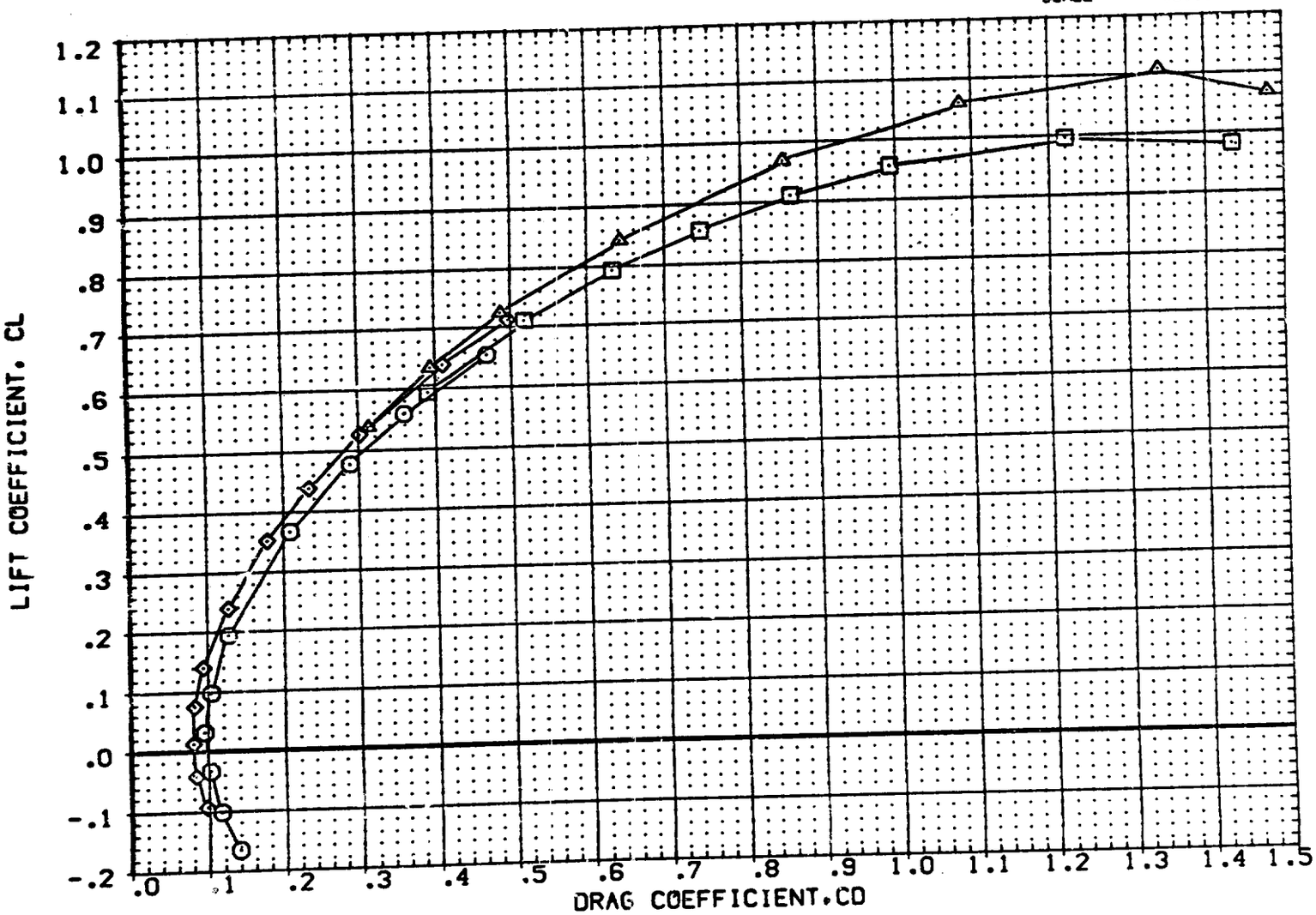


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(JBY005)	○	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	□	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY00.)	△	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

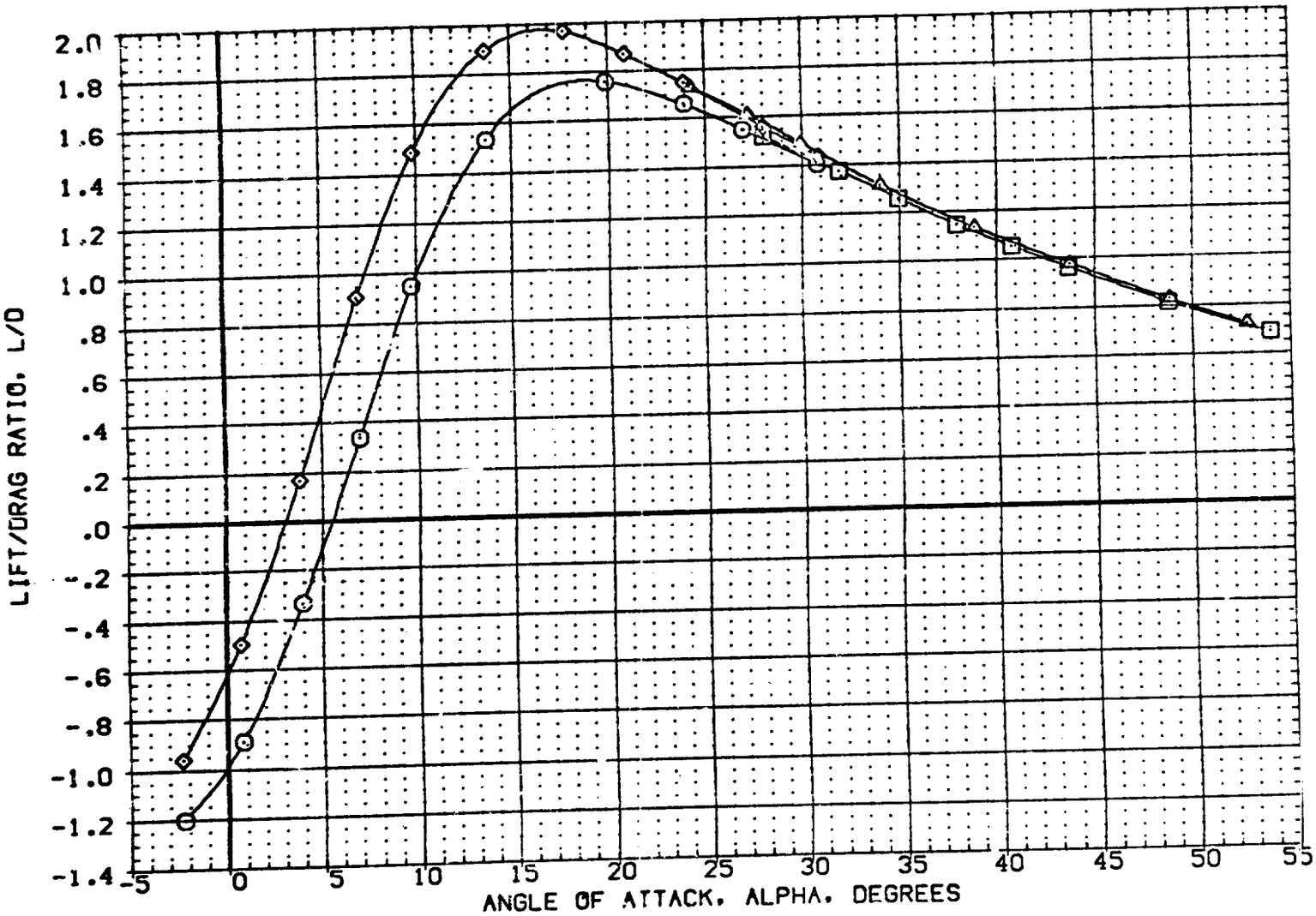


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.25

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(J8Y005)	○	AMES 3.5-163 0A58 (819C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(J8Y003)	□	AMES 3.5-163 0A58 (819C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(J8Y002)	◇	AMES 3.5-163 0A58 (819C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(J8Y001)	△	AMES 3.5-163 0A58 (819C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

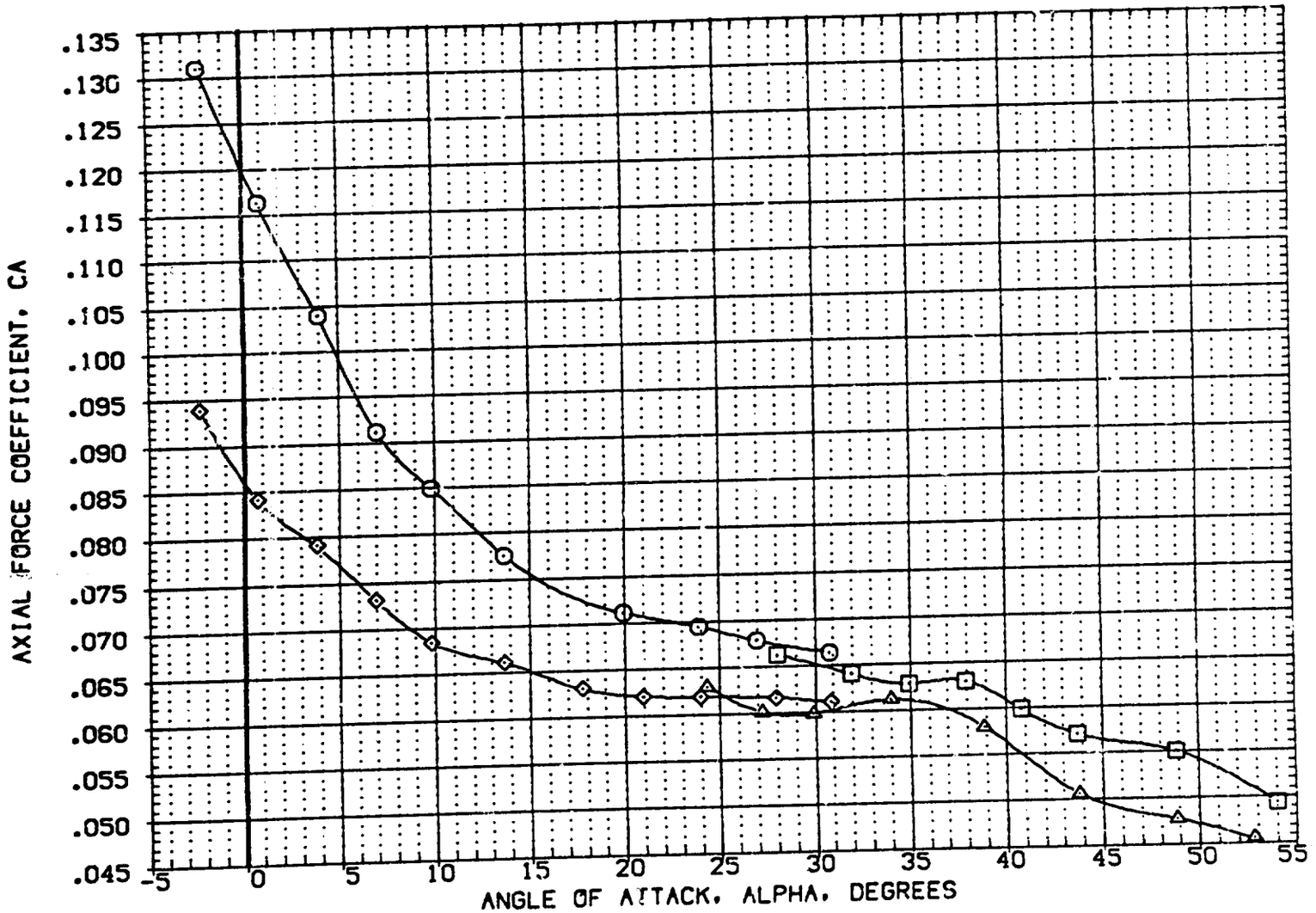


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY005) ○	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003) □	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001) △	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

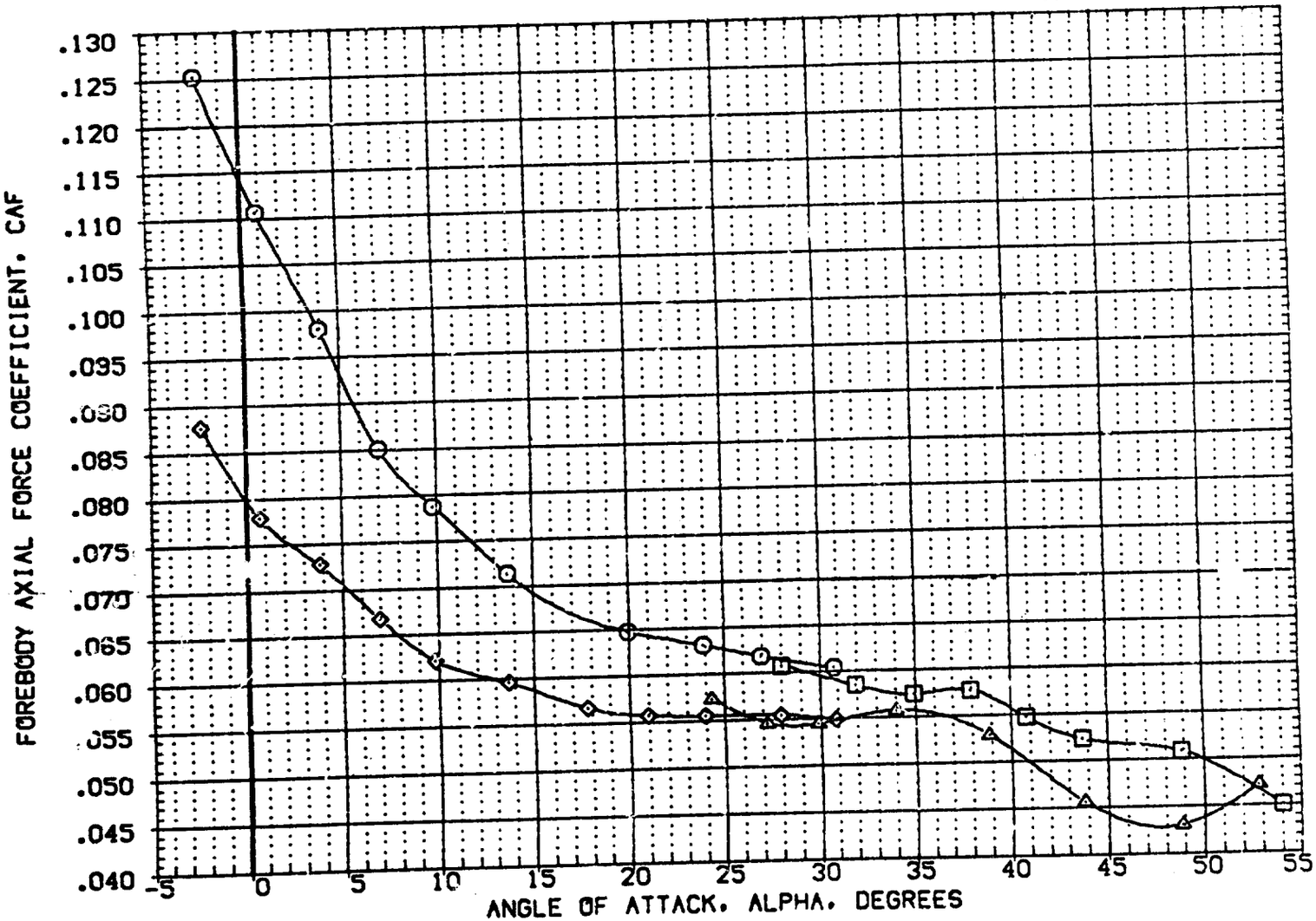


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.090	.000	-14.250	54.920
(JBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

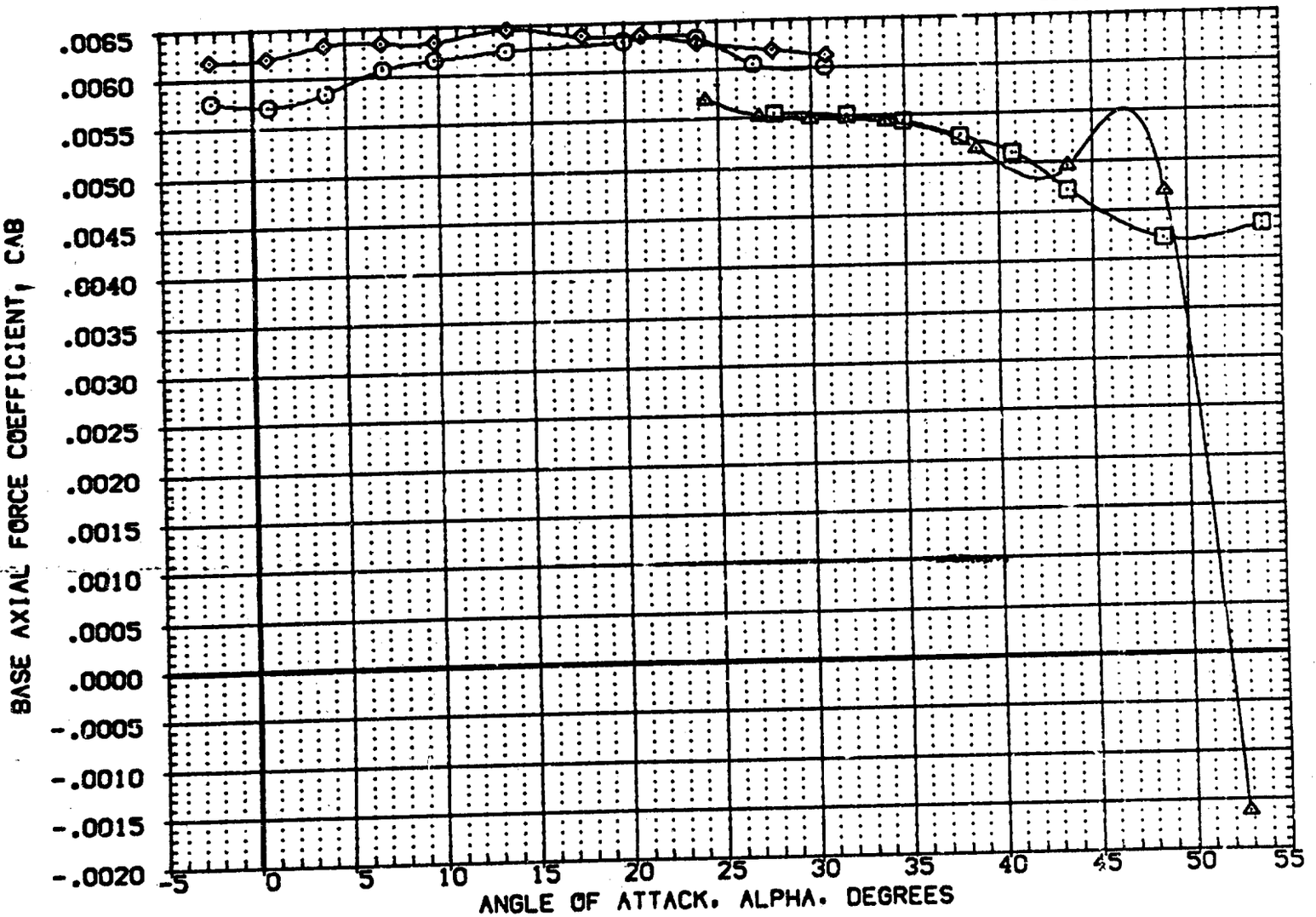


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBYO05)	○	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBYO03)	□	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBYO02)	⊠	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBYO01)	△	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

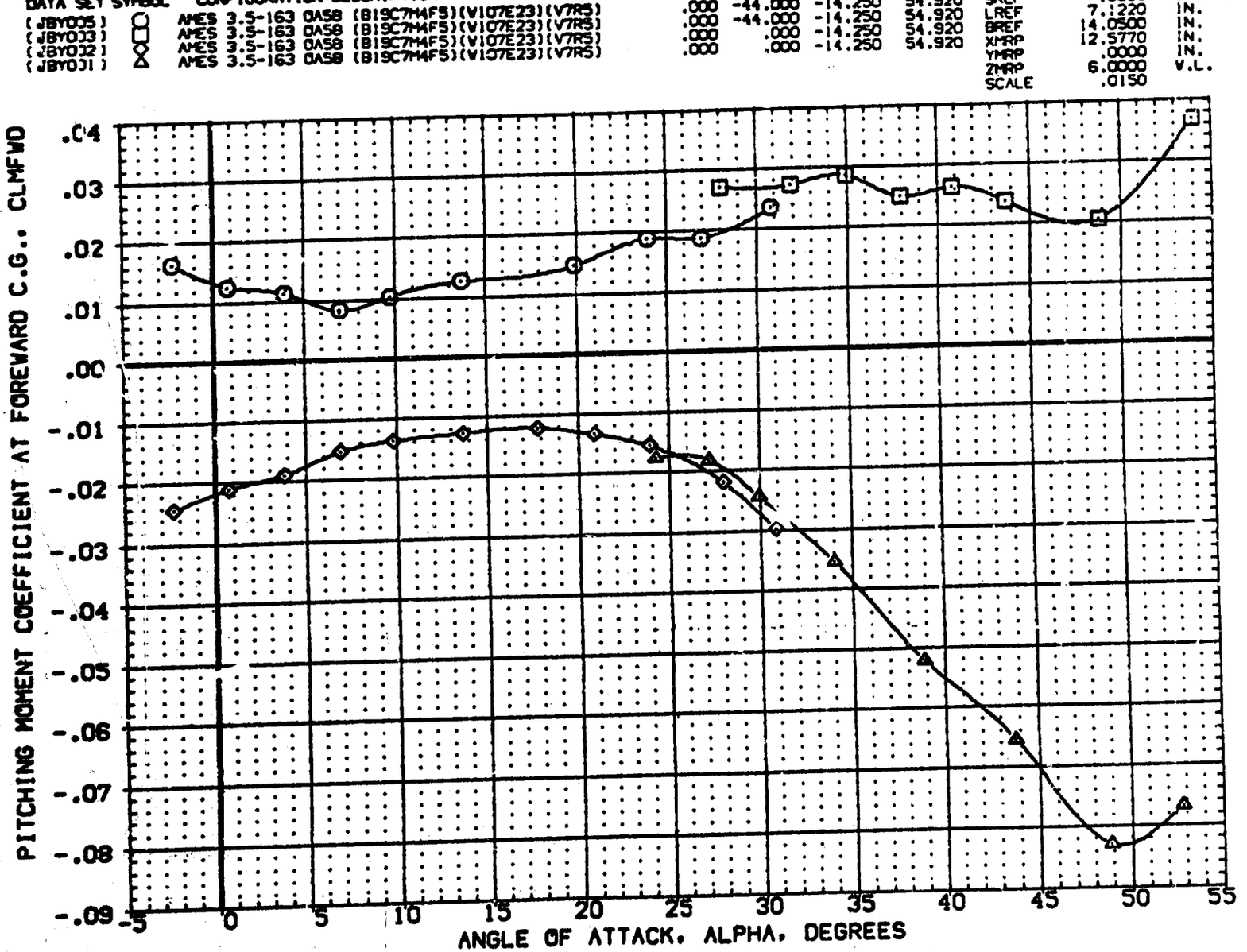


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(JBY005)	○	AMES 3.5-163 OA58 (B1SC7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY004)	□	AMES 3.5-163 OA58 (B1SC7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	◇	AMES 3.5-163 OA58 (B1SC7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY002)	⊠	AMES 3.5-163 OA58 (B1SC7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 OA58 (B1SC7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

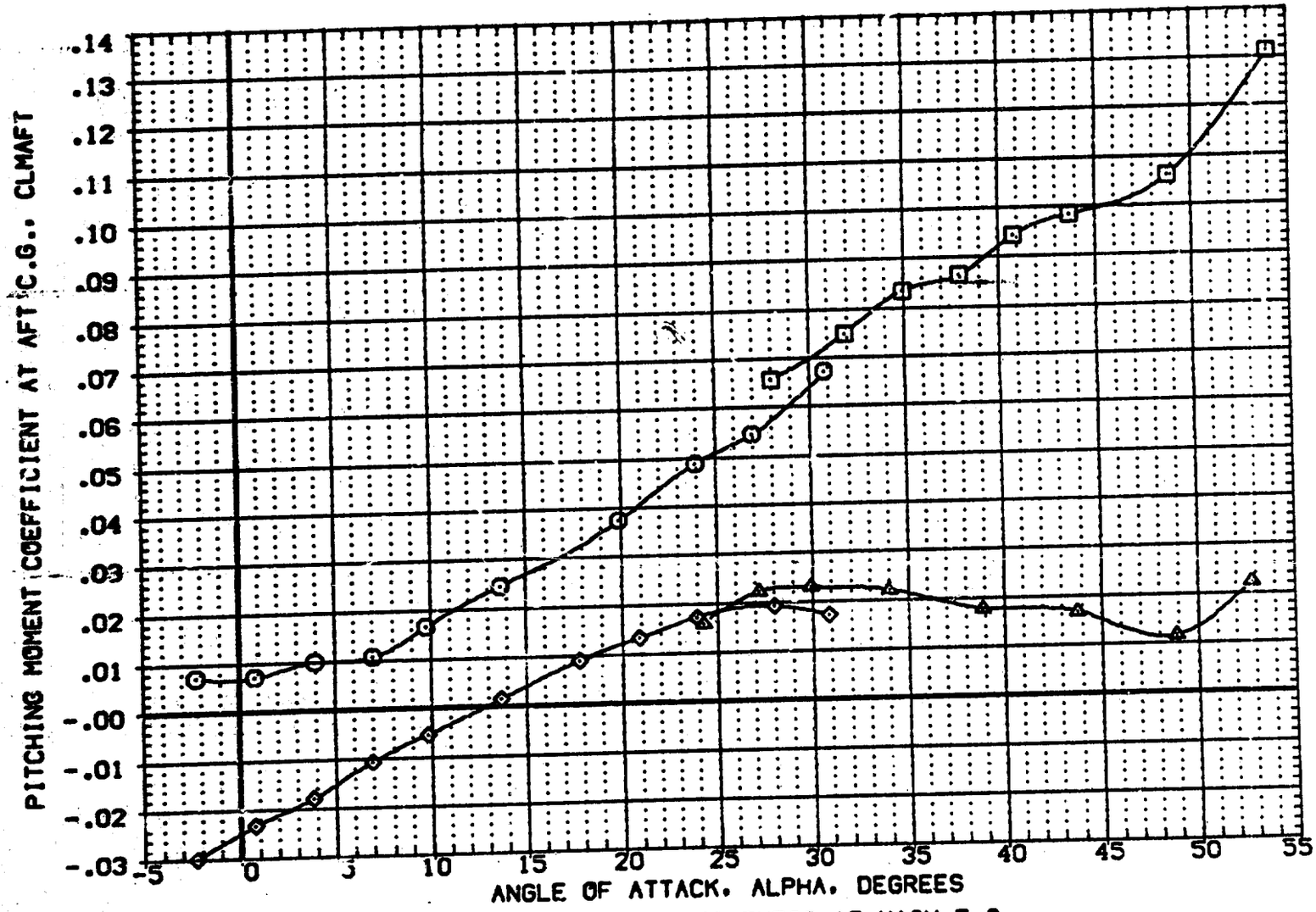


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(JBY005)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	⊠	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

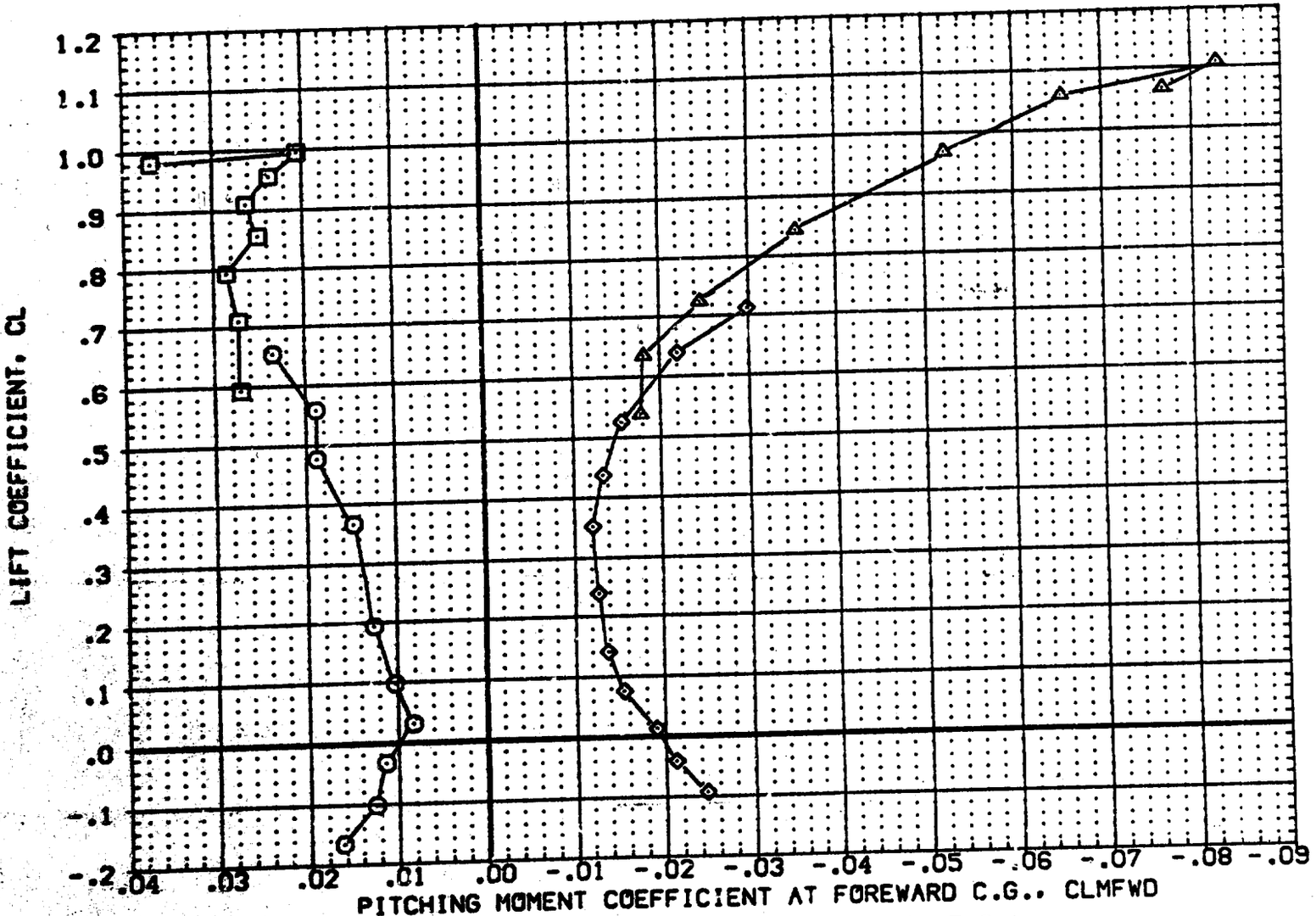


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(JBY005)	□	AMES 3.5-163 OASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY003)	□	AMES 3.5-163 OASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBY002)	⊠	AMES 3.5-163 OASB (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBY001)	△	AMES 3.5-163 OASB (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

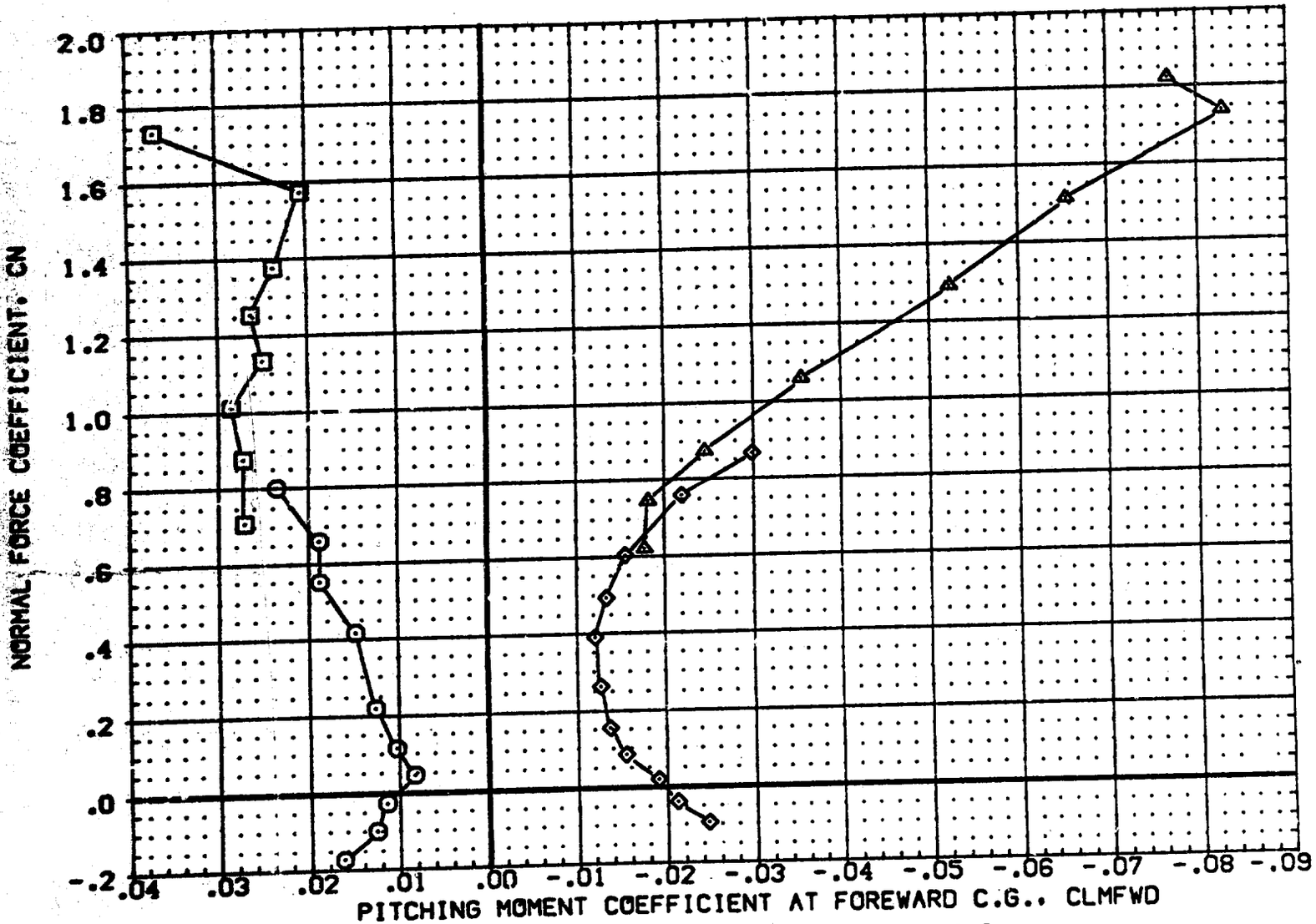


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBYJ05)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBYJ03)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(JBYJ02)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(JBYJ01)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

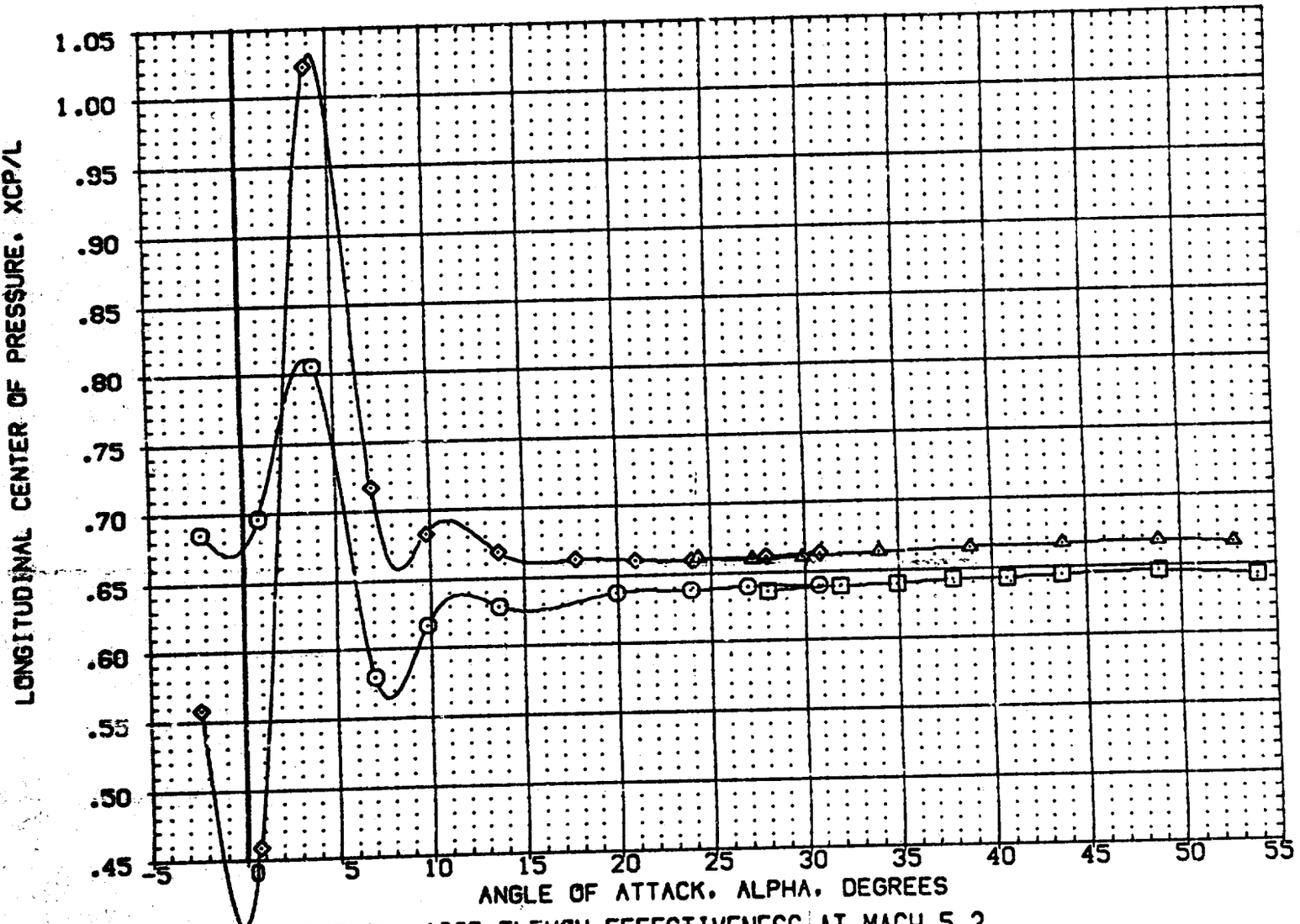


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY005)	AMES 3.5-163 OA58 (B19C7H4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)	AMES 3.5-163 OA50 (B19C7H4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

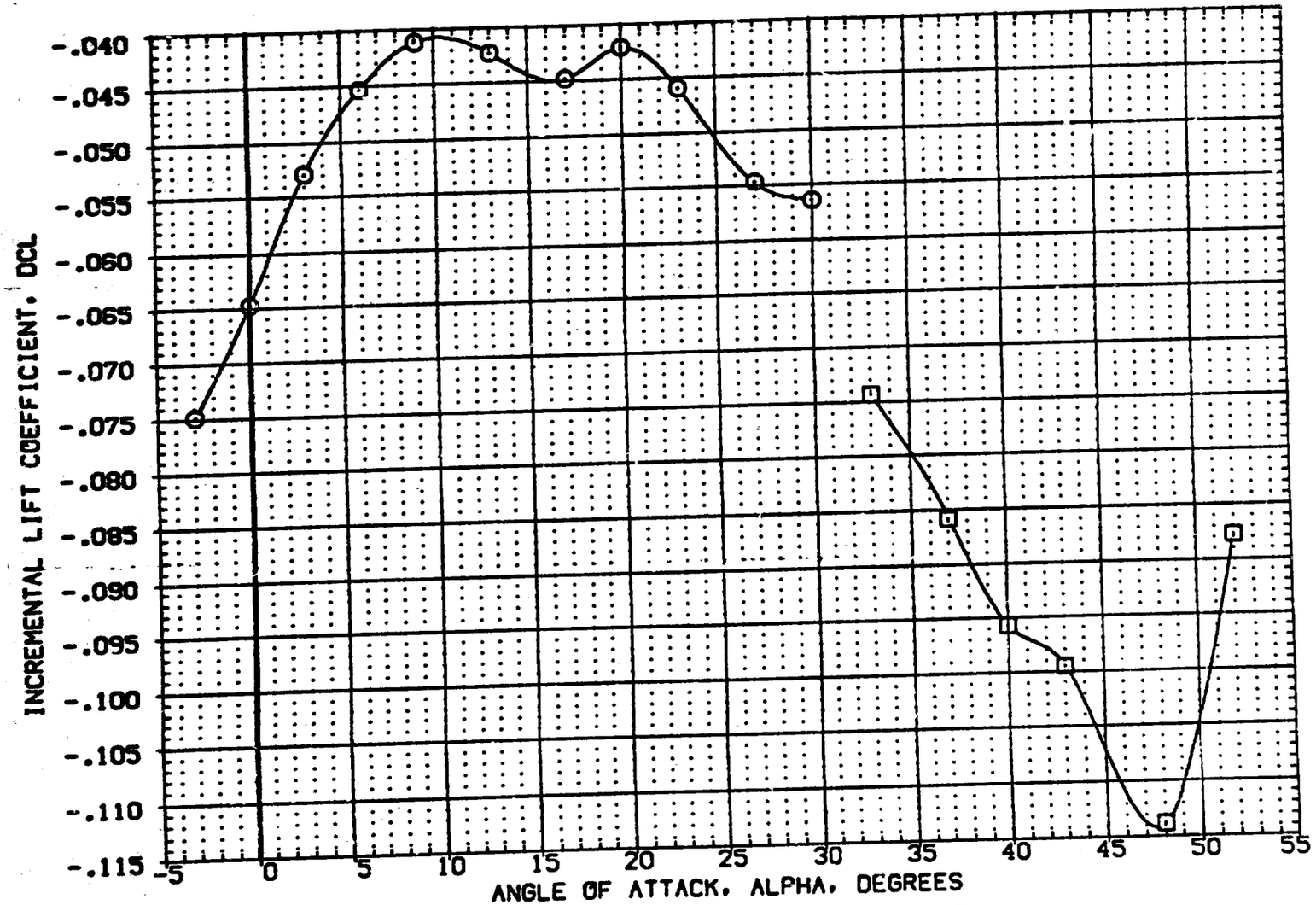


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(GBY005) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	



FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY005)	AMES 3.5-163 BASE (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)	AMES 3.5-163 BASE (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

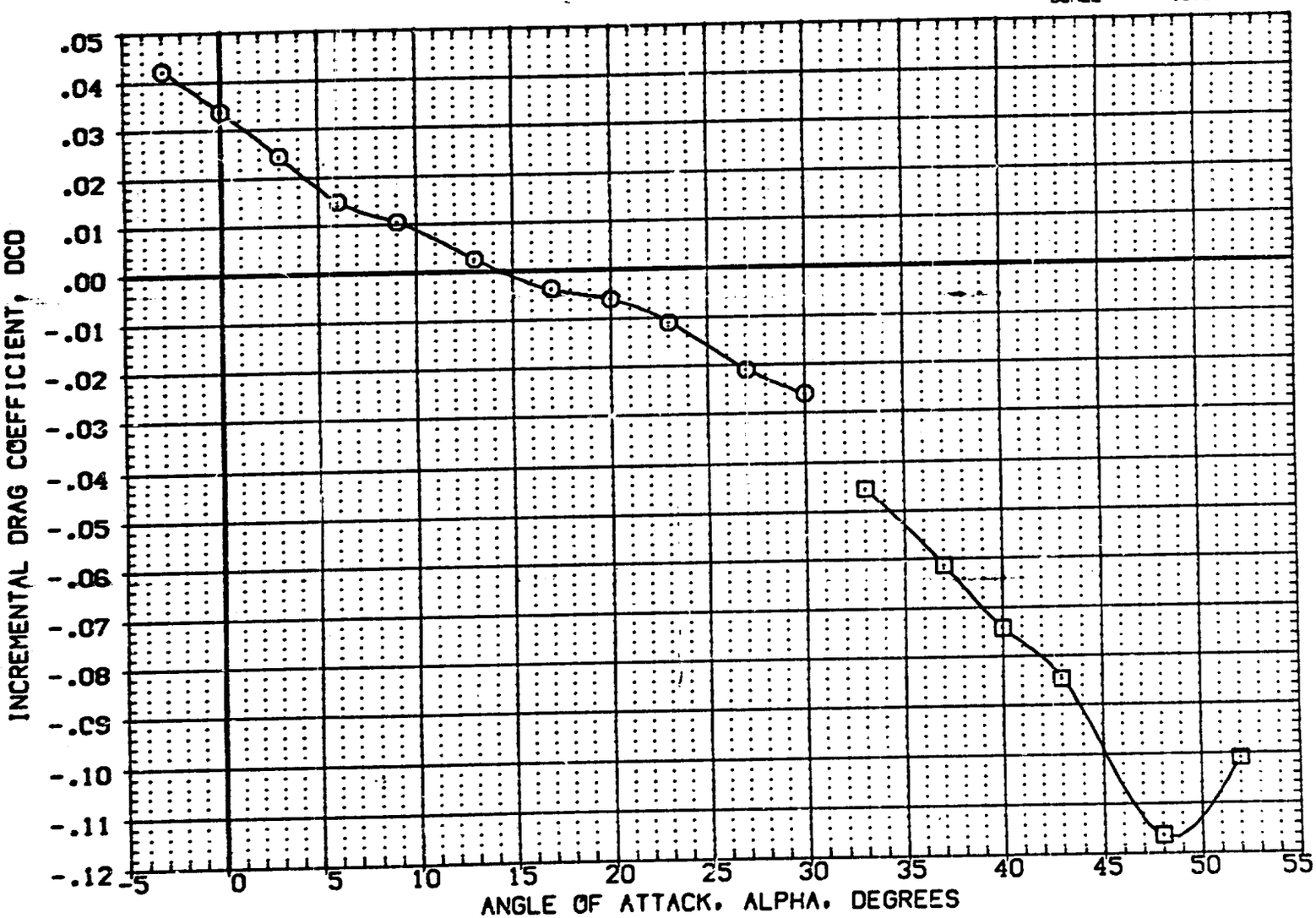


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPOBRK
(GBY005)	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

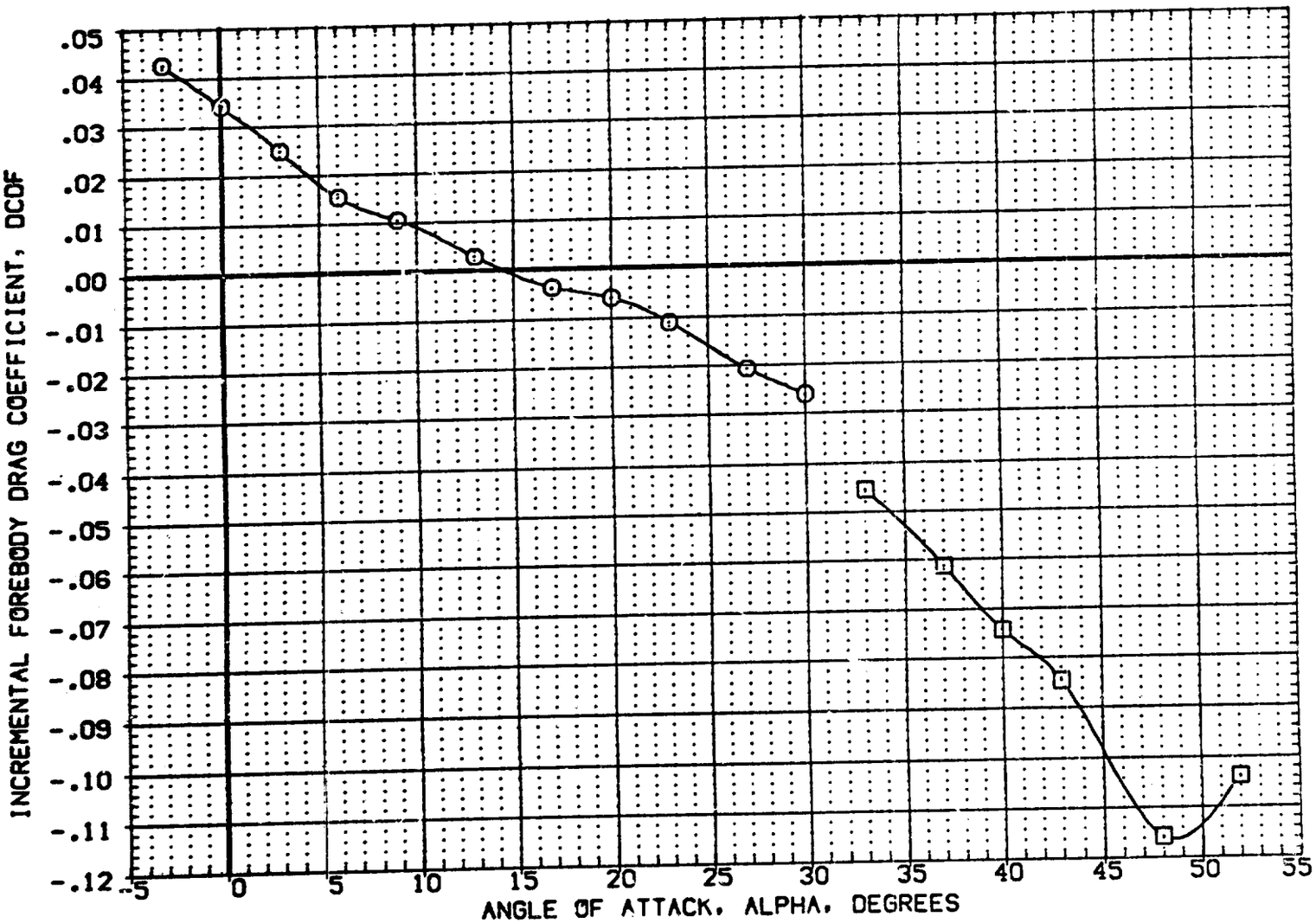


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPOBRK
(GBY005)	AMES 3.5-163 0A56 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

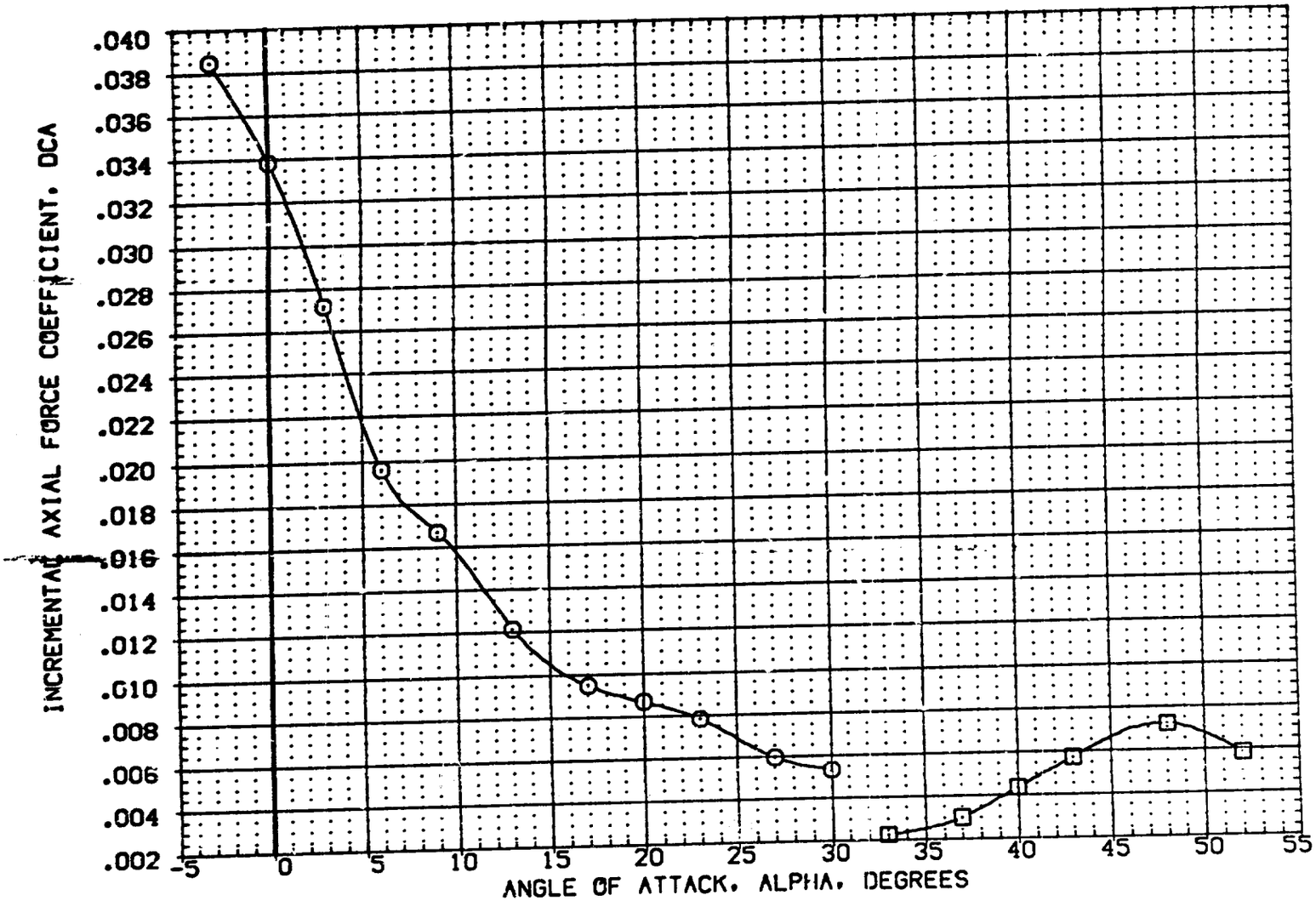


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(a) MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY005)	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.3050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	M.L.
SCALE	.0150	

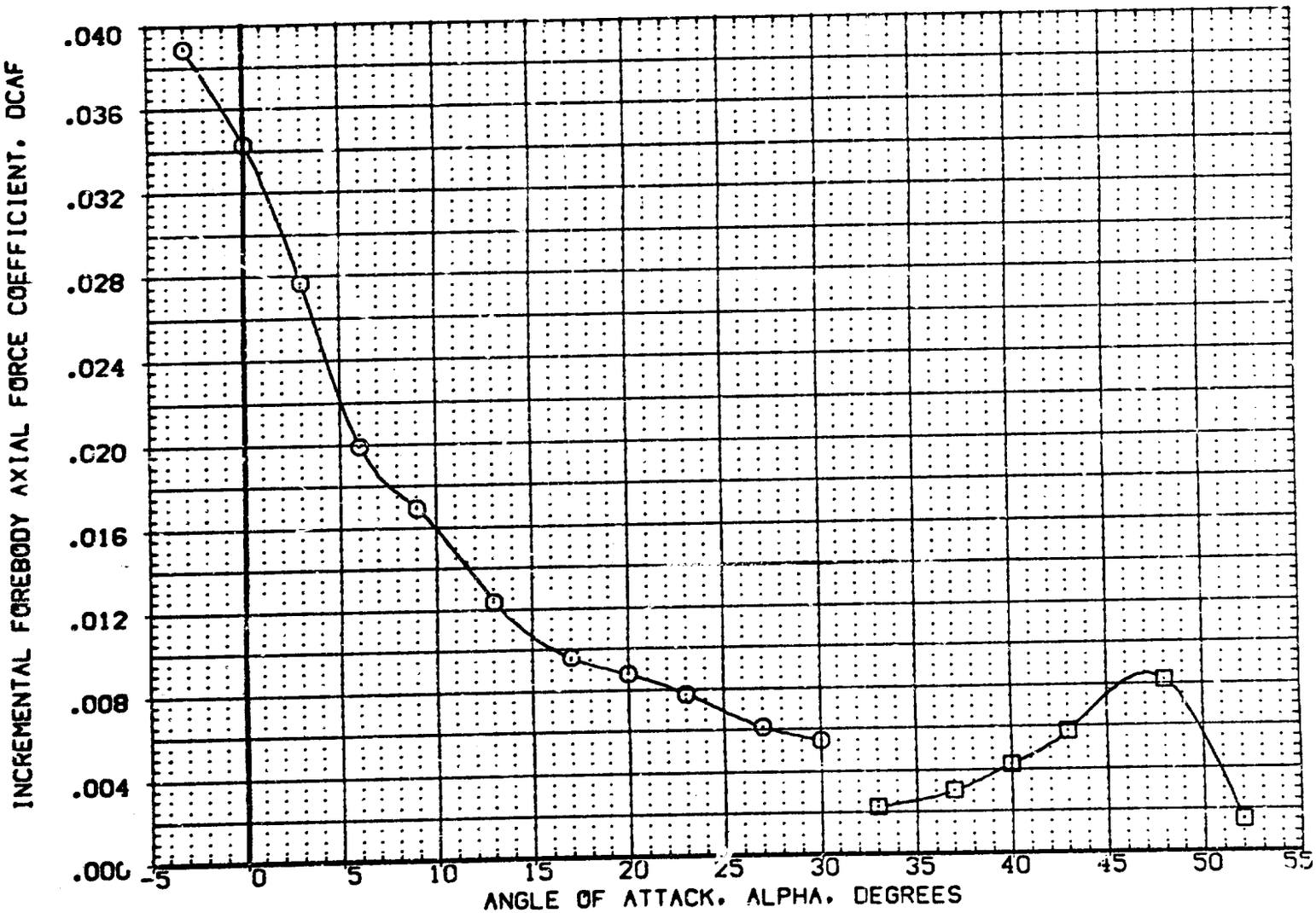


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(GBY005) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

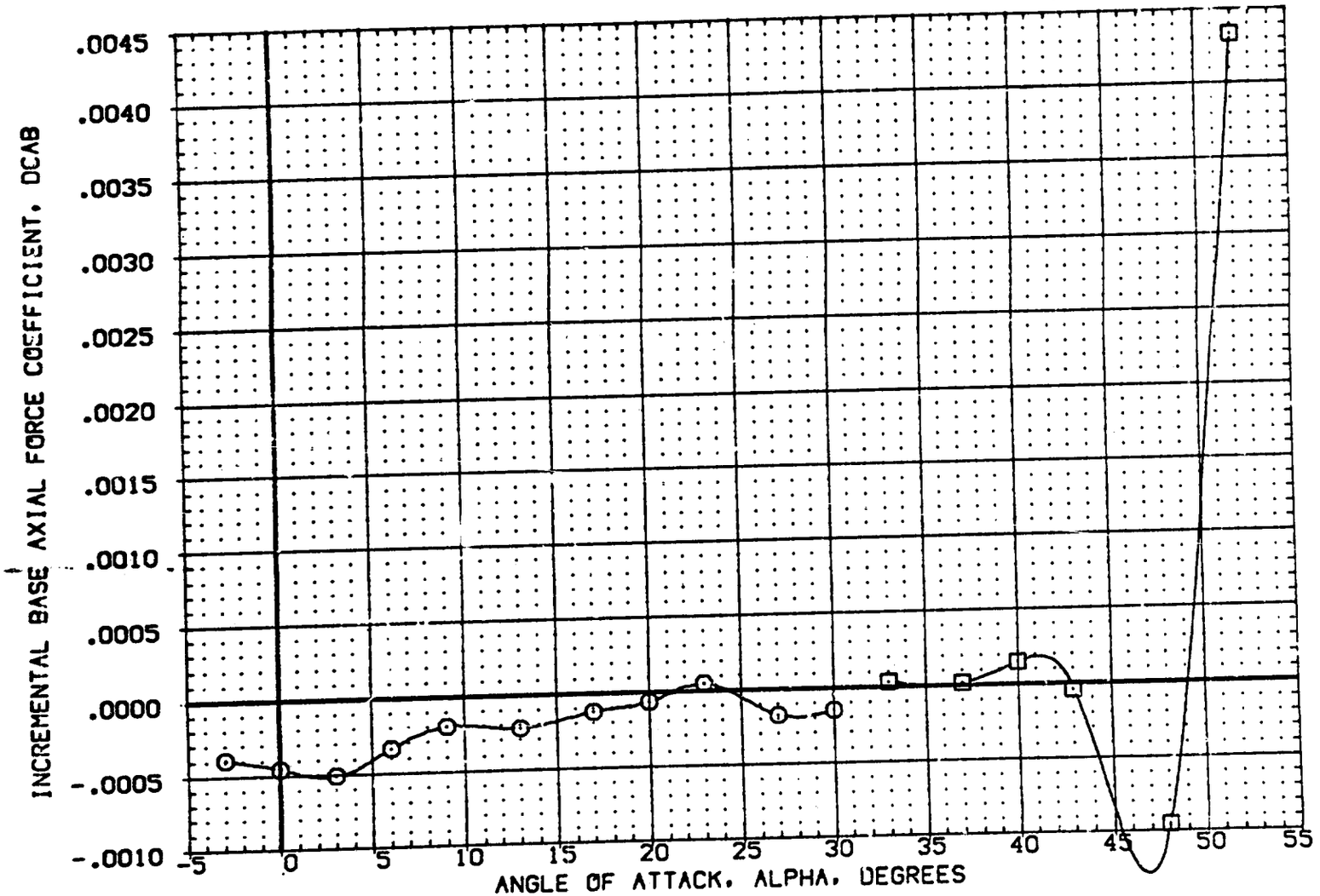


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

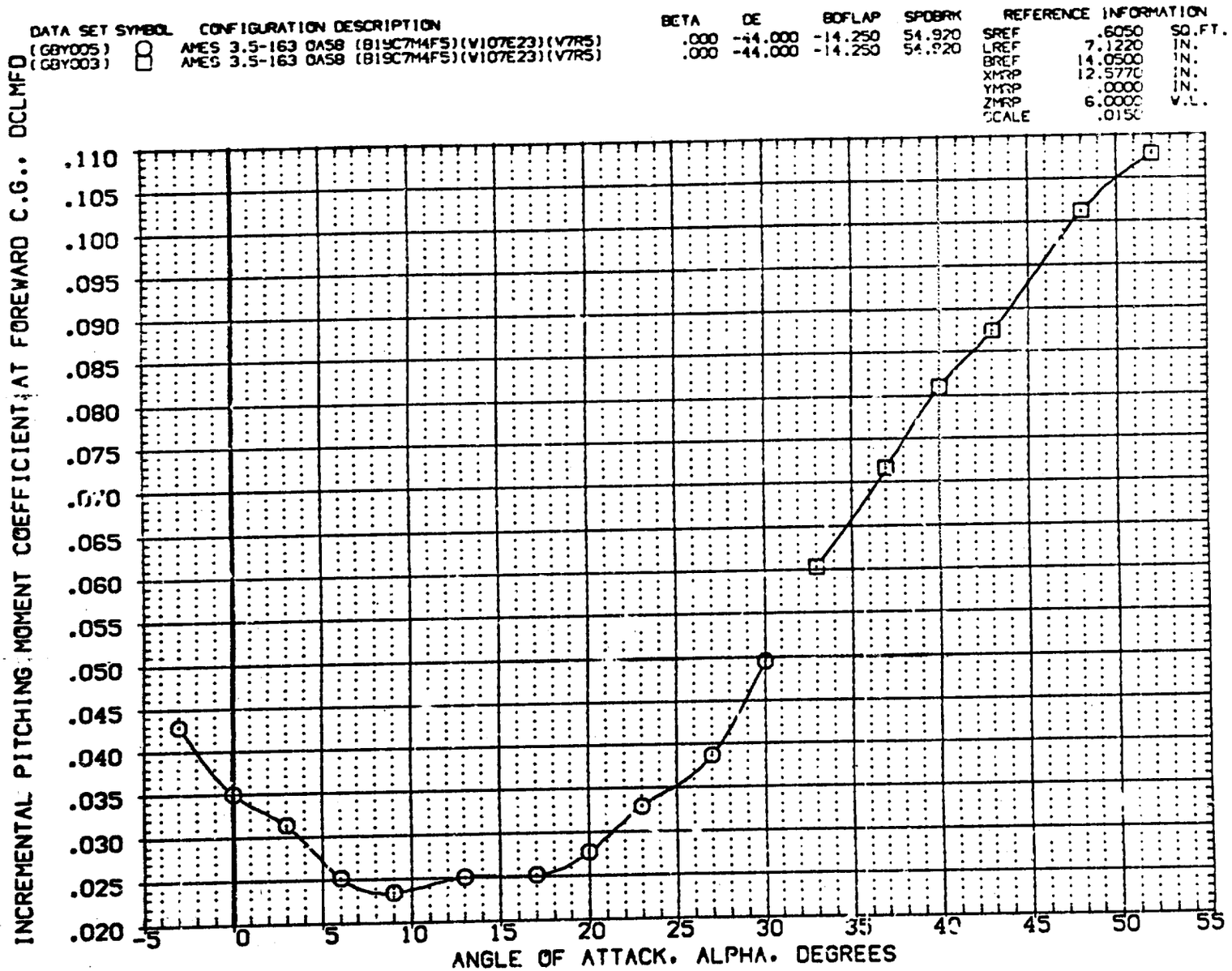


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY005)	8	AMES 3.5-163 DA58 (B19C7M4F5)(V107::23)(V7R5)	.000	-44.000	-14.250	54.920
(GBY003)		AMES 3.5-163 DA58 (B19C7M4F5)(V107::23)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

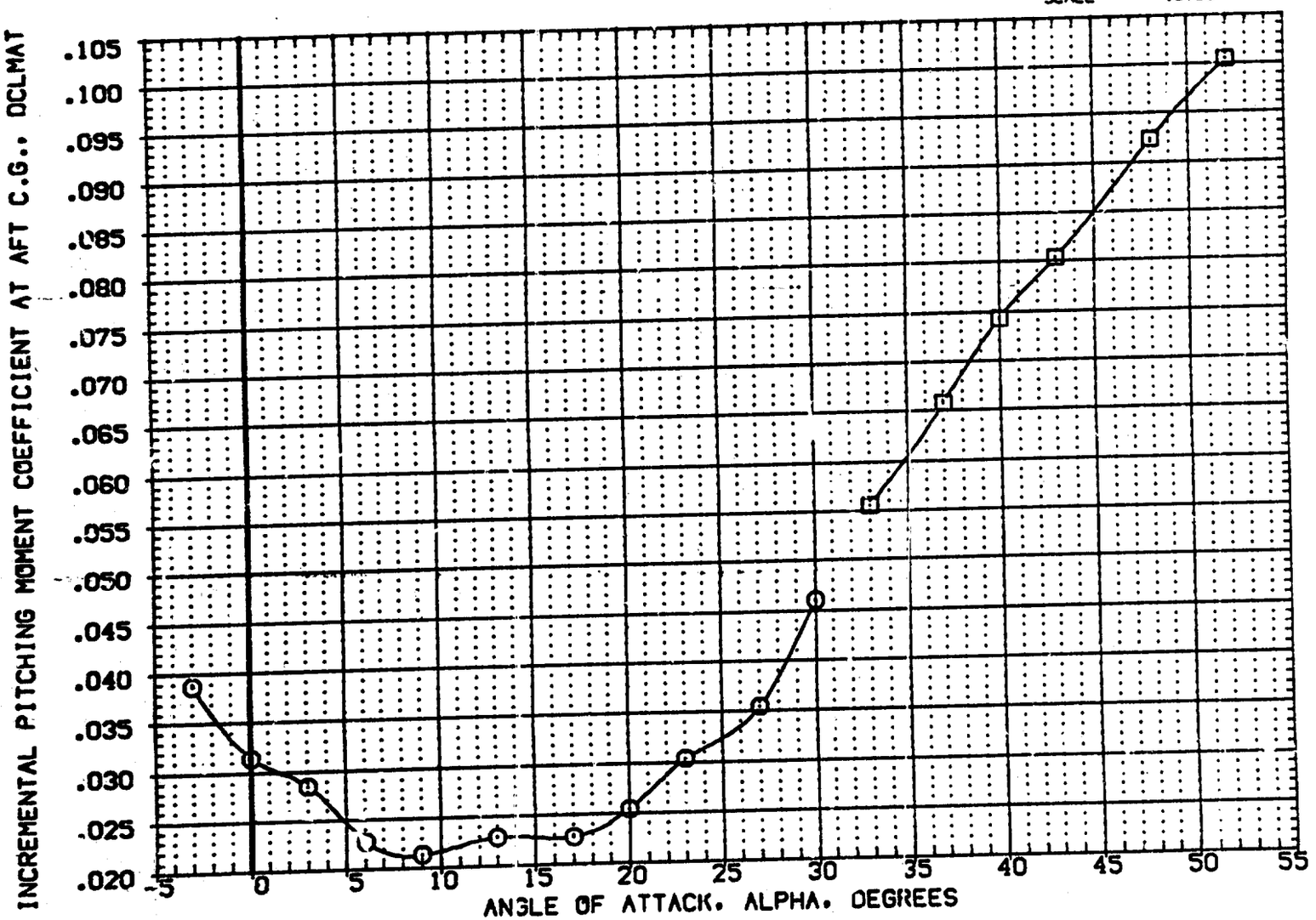


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

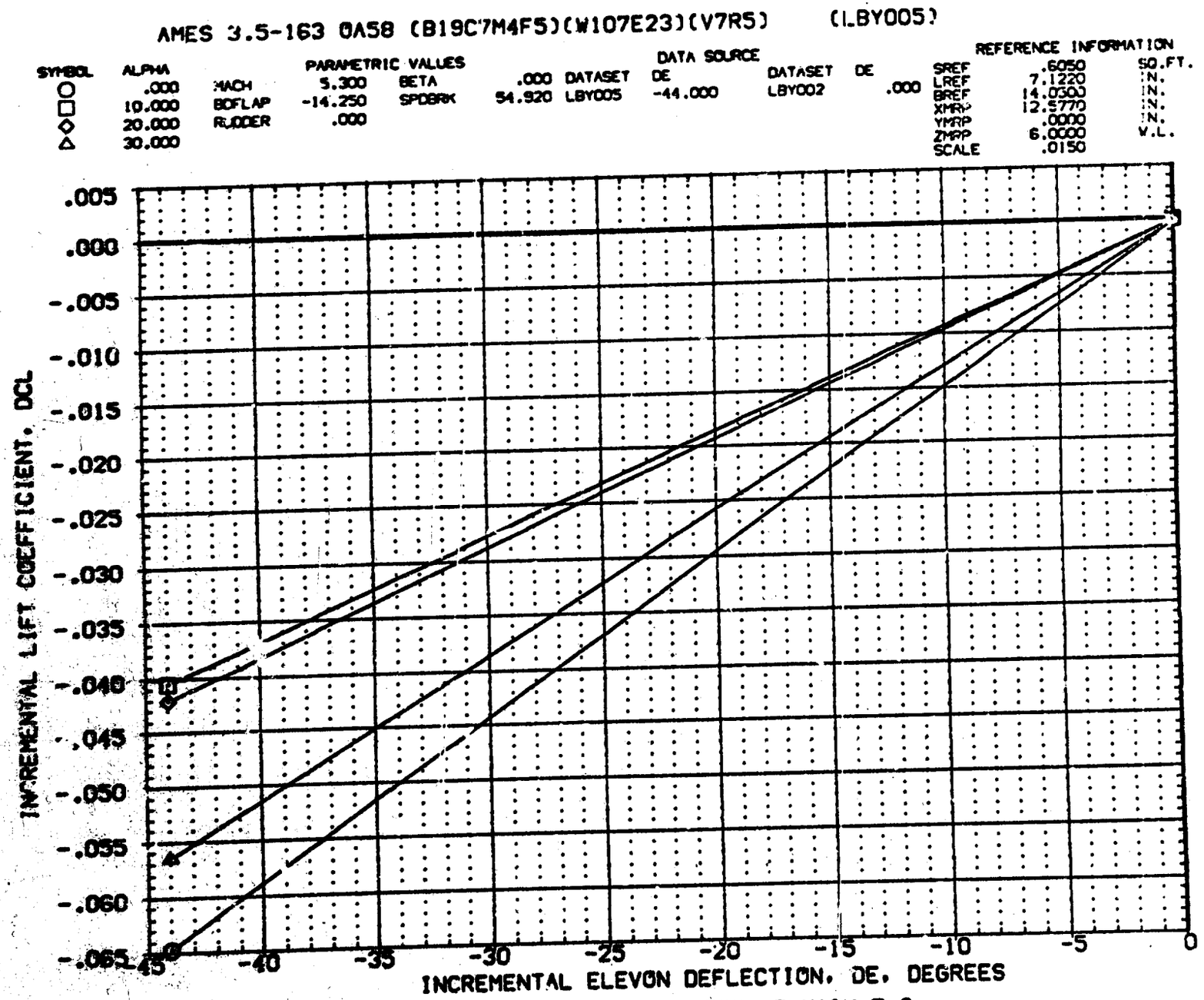


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

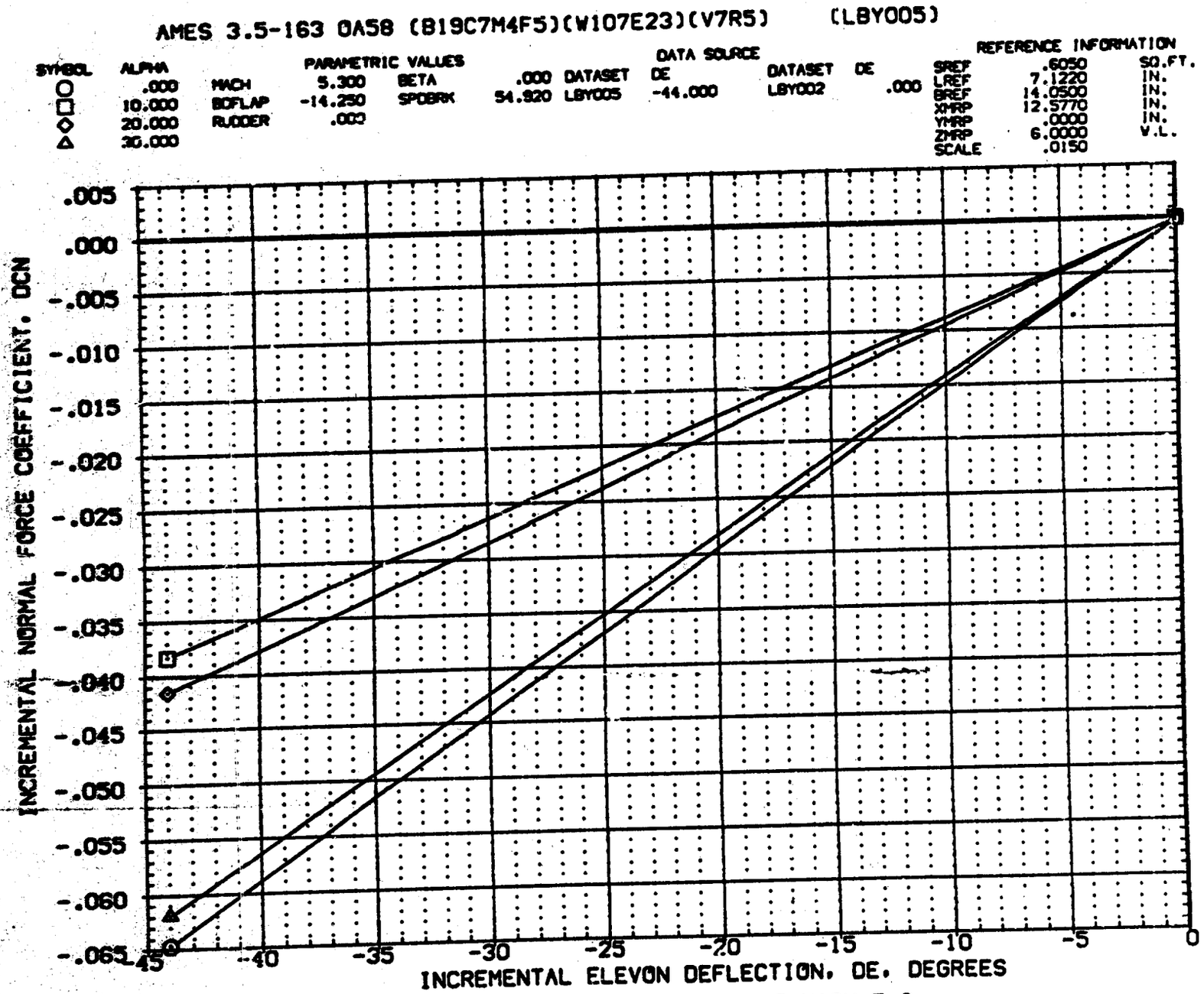


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (LBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	10.000	BDFLAP	-14.250	SPOBRK	54.920	LBY005	-44.000	LBY002	.000	LREF	7.1220	IN.
◇	20.000	RUDDER	.000							BREF	14.0500	IN.
△	30.000									XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

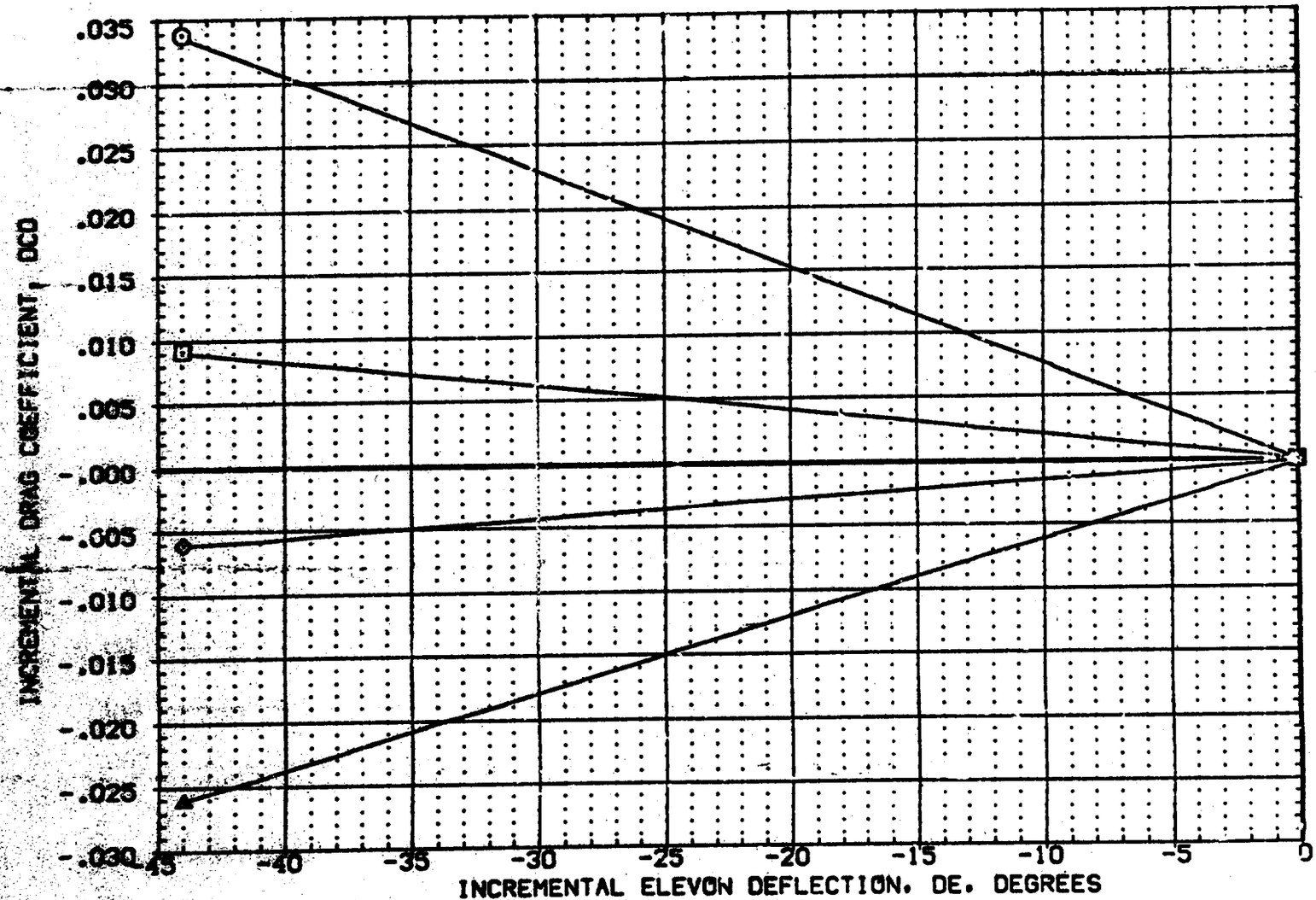


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (LBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	.000
□	10.000	BOFLAP	-14.250	SPOBRK	54.920	LBY005	-44.000	LBY002		
◇	20.000	RUDDER	.000							
△	30.000									

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

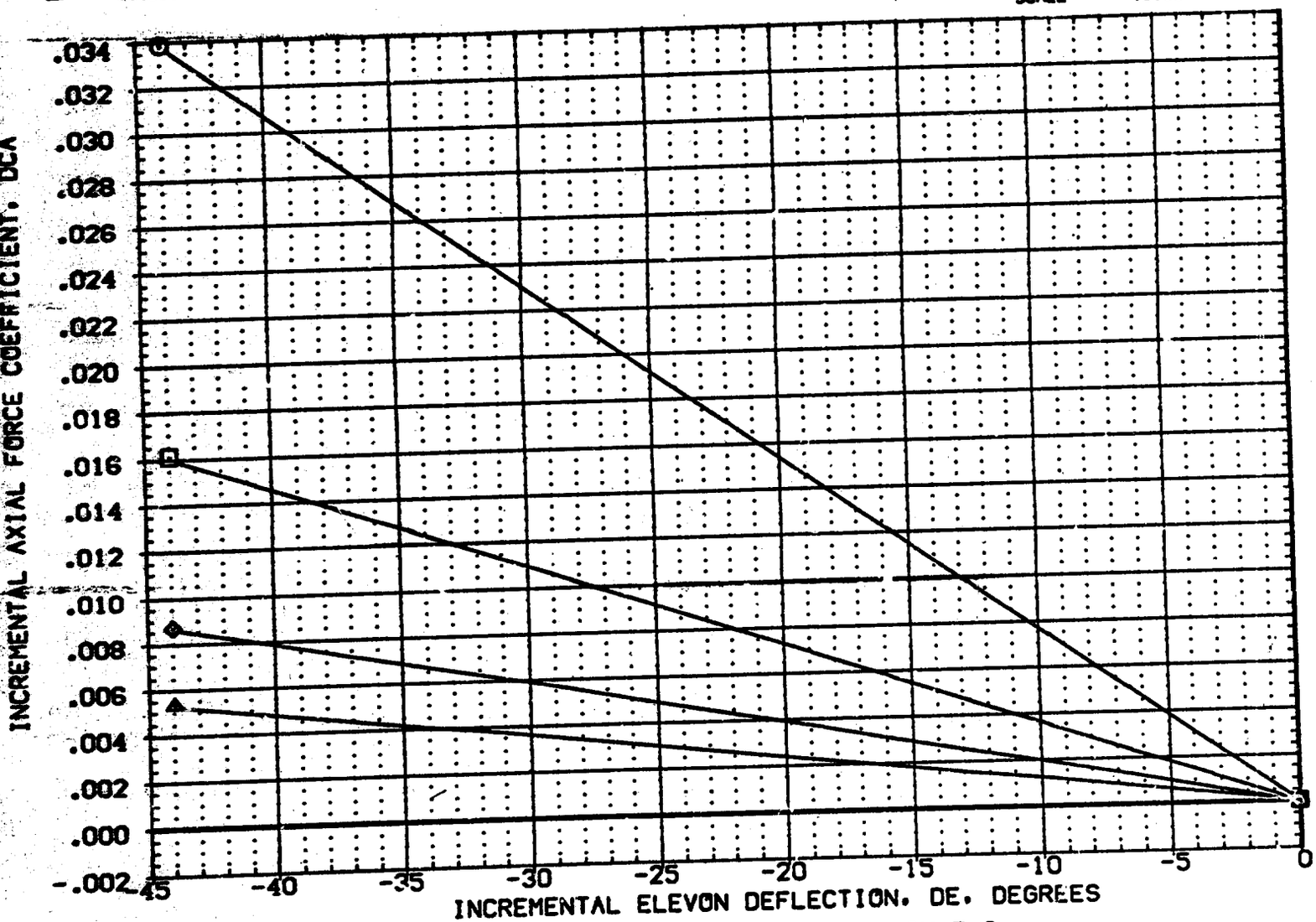


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

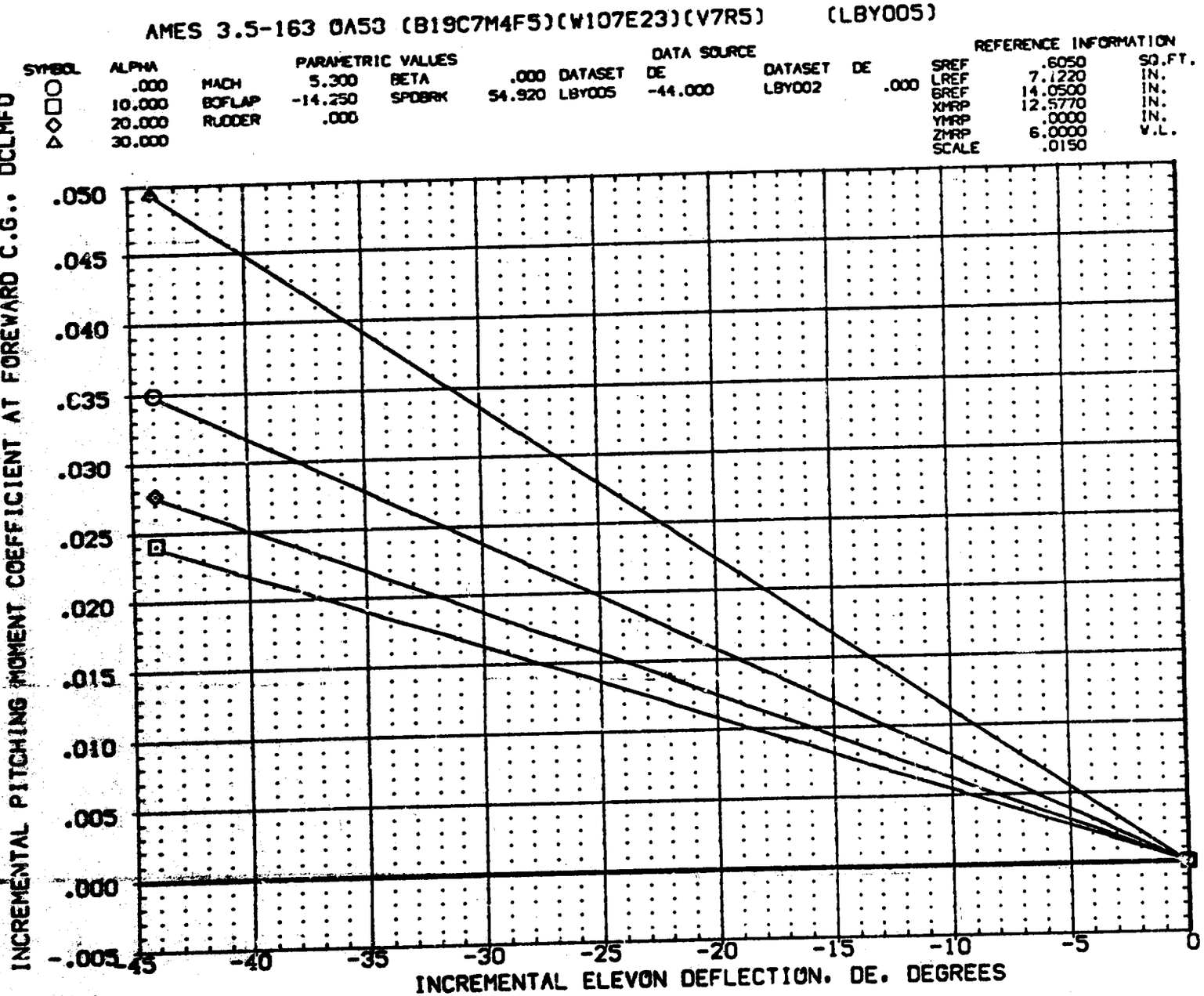


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (LBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE					REFERENCE INFORMATION		
○	.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE		SREF	.6050	SQ.FT.
□	10.000	BOFLAP	-14.250	SPOBRK	54.920	LBY005	-44.000	LBY002		.000	LREF	7.1220	IN.
◇	20.000	RUDDER	.000								BREF	14.0500	IN.
△	30.000										XMRP	12.5770	IN.
											YMRP	.0000	IN.
											ZMRP	6.0000	V.L.
											SCALE	.0150	

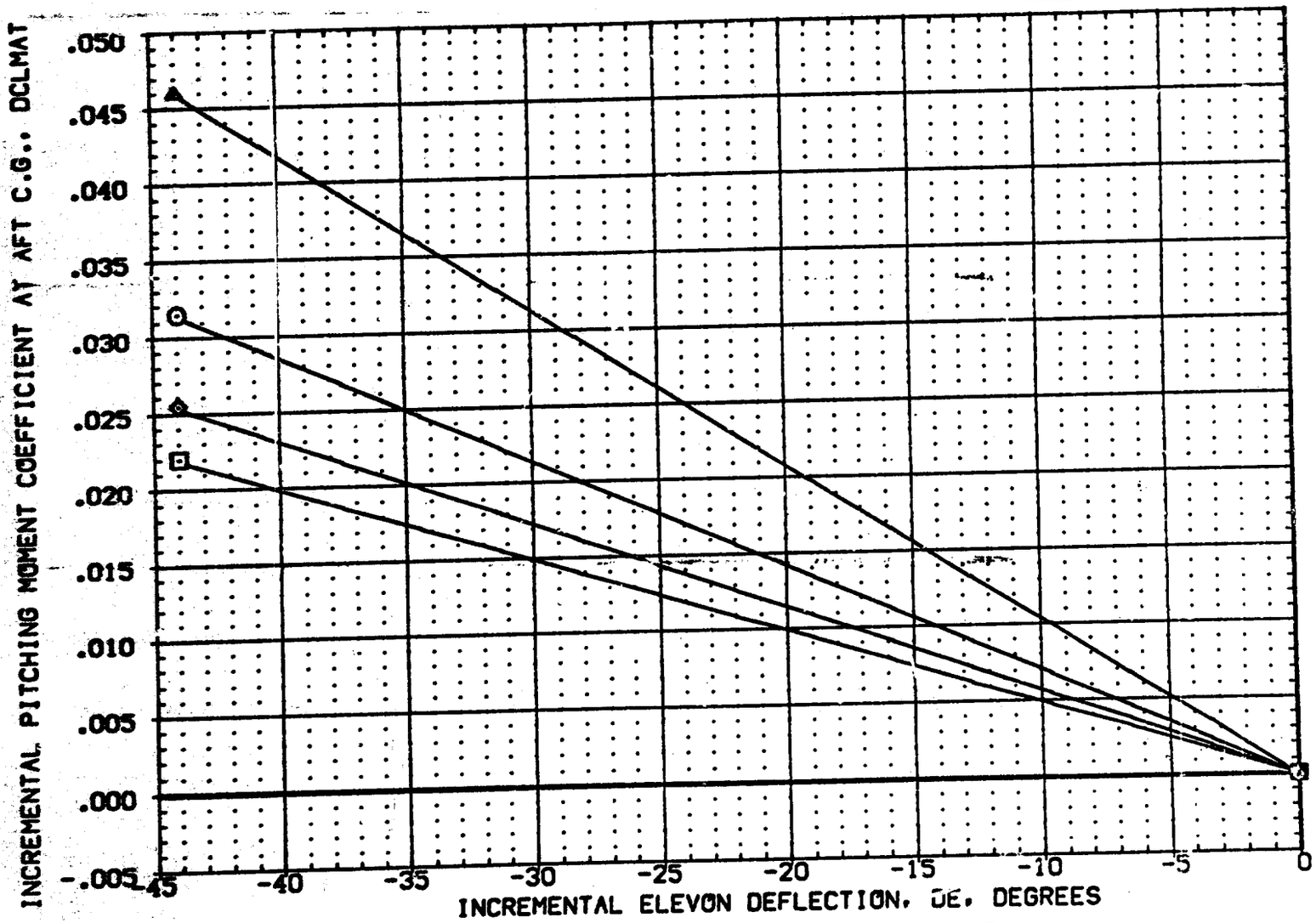


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (LBY003)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	30.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	
□	40.000	BOFLAP	-14.250	SPOBRK	54.920	LBY003	-44.000	LBY001	.000	
◇	50.000	RUDDER	.000							

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

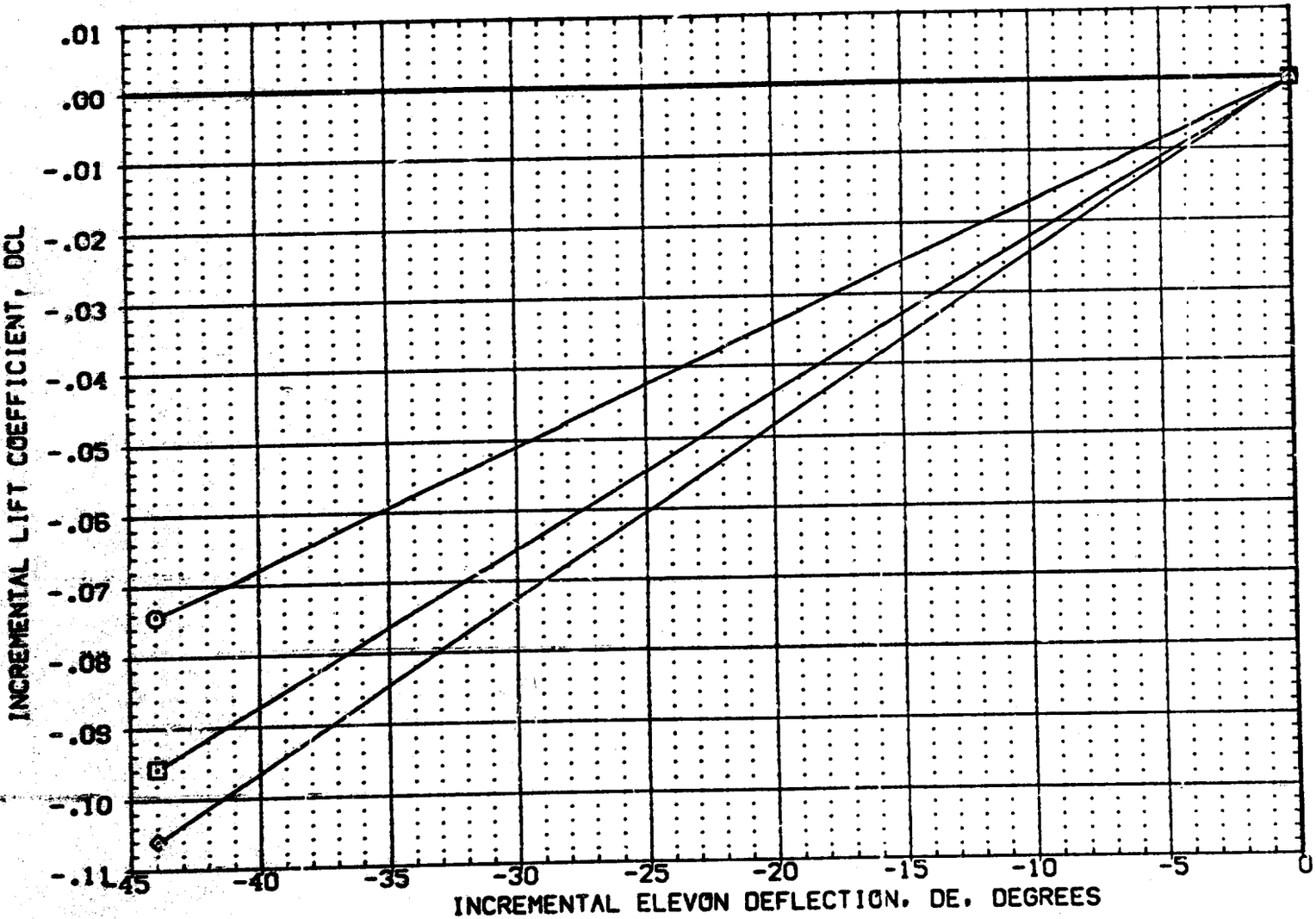


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

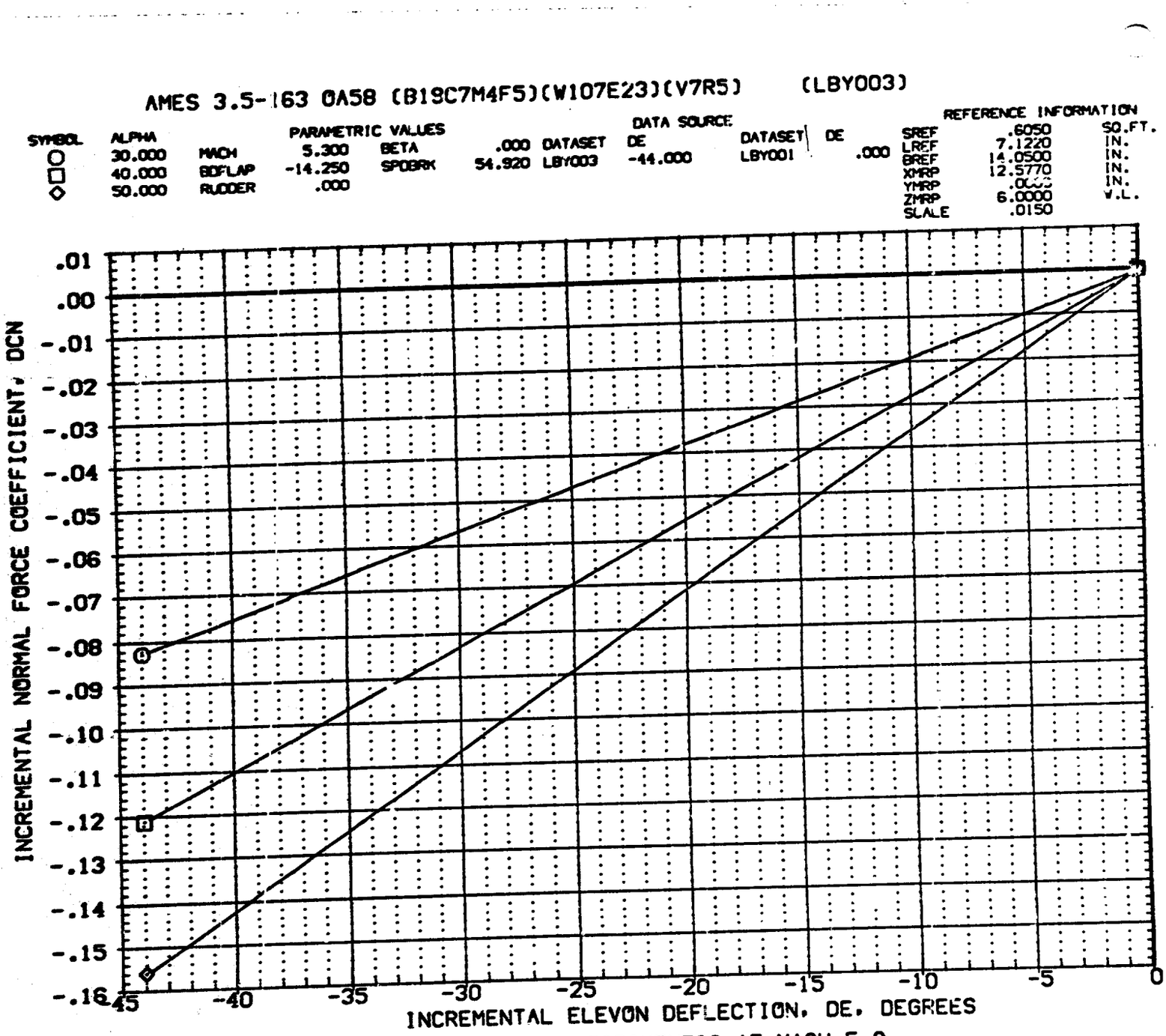


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5--163 0A58 (B19C7M4F5)(W107E23)(V7R5) (LBY003)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	30.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	
□	40.000	BDFLAP	-14.250	SPOBRK	54.920	LBY003	-44.000	LBY001	.000	
◇	50.000	RUDDER	.000							

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

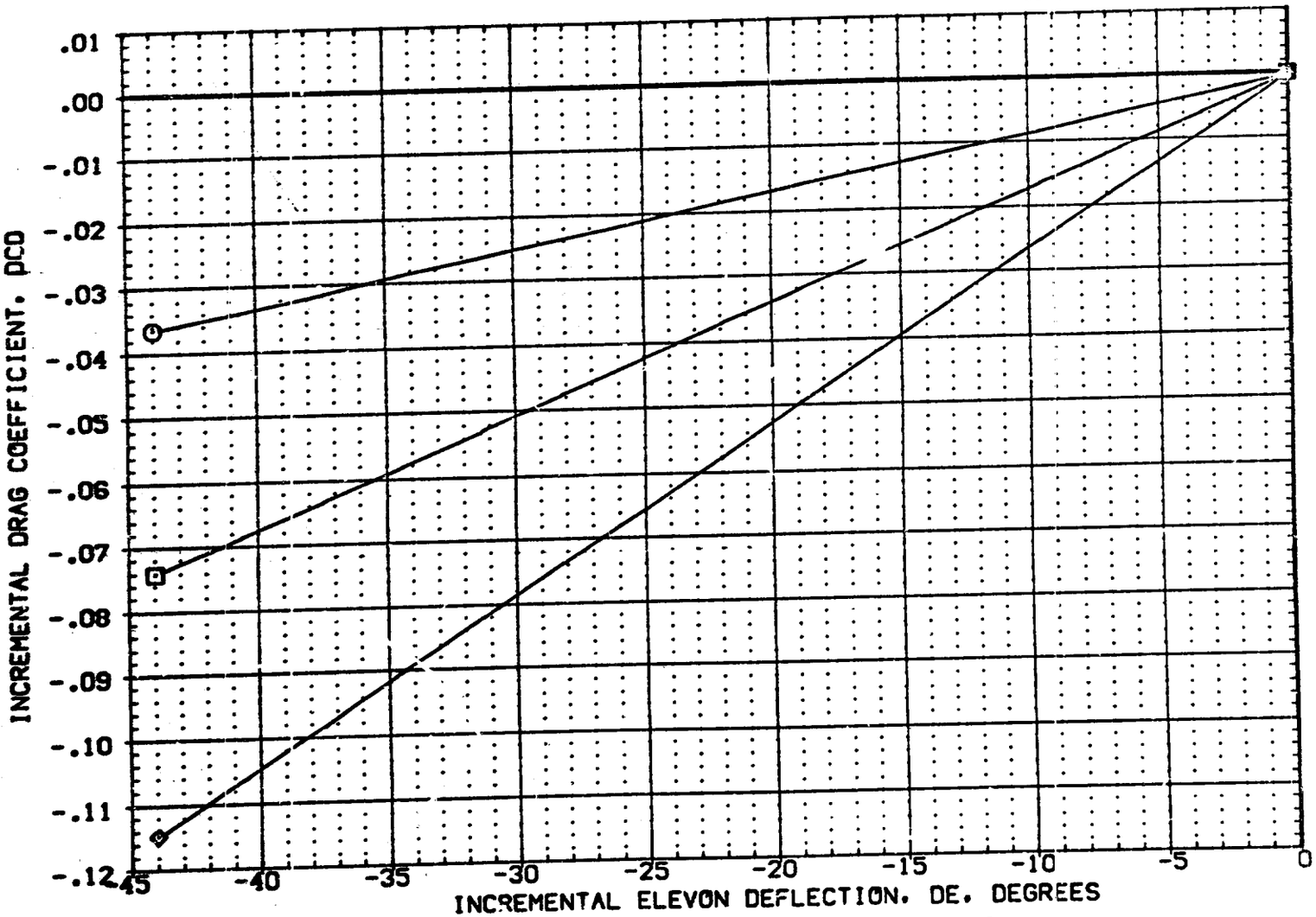


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

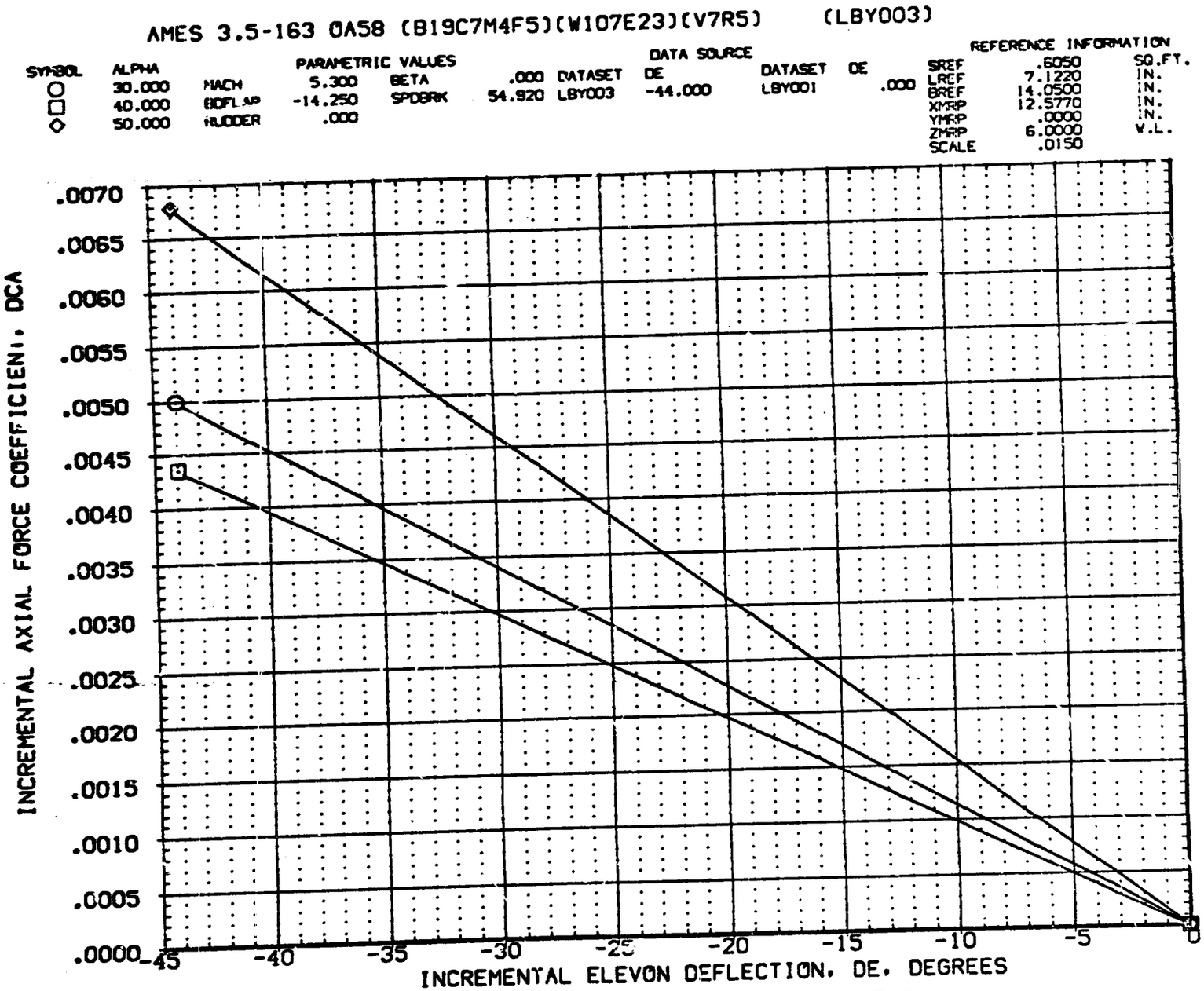


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

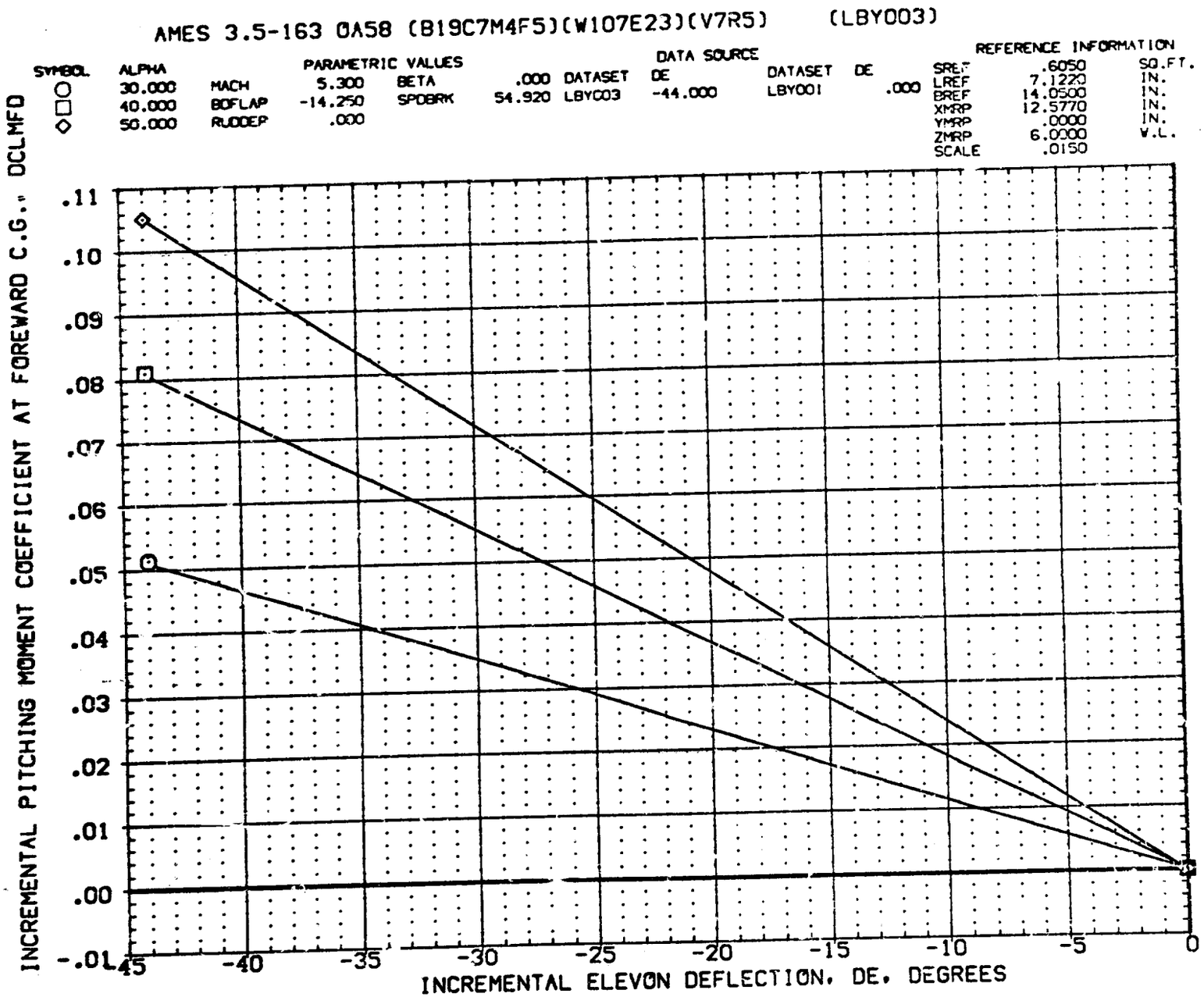


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

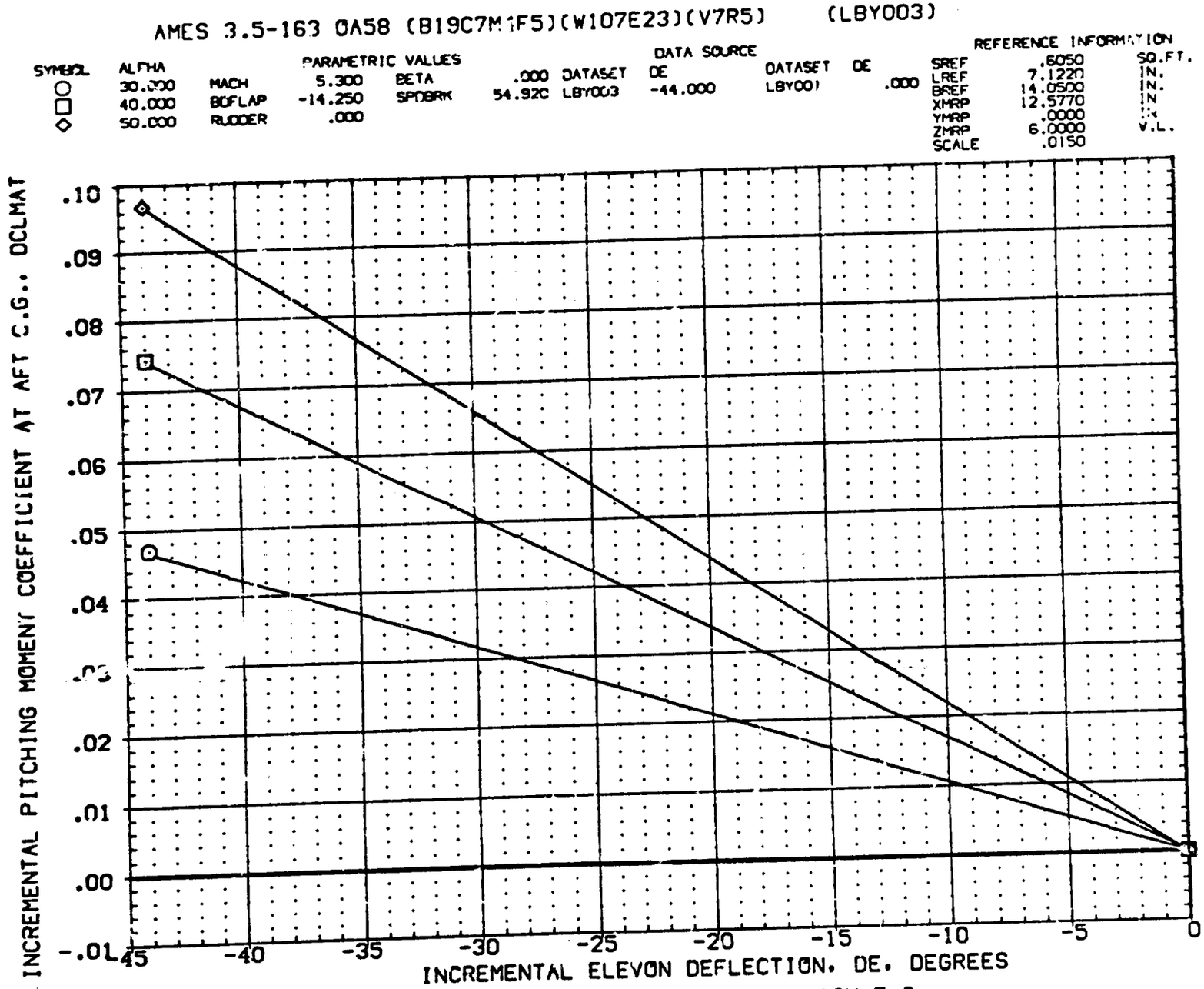


FIG. 4 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 5.3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(KBY005)	□	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	△	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	▽	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY008)	◁	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	▷	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

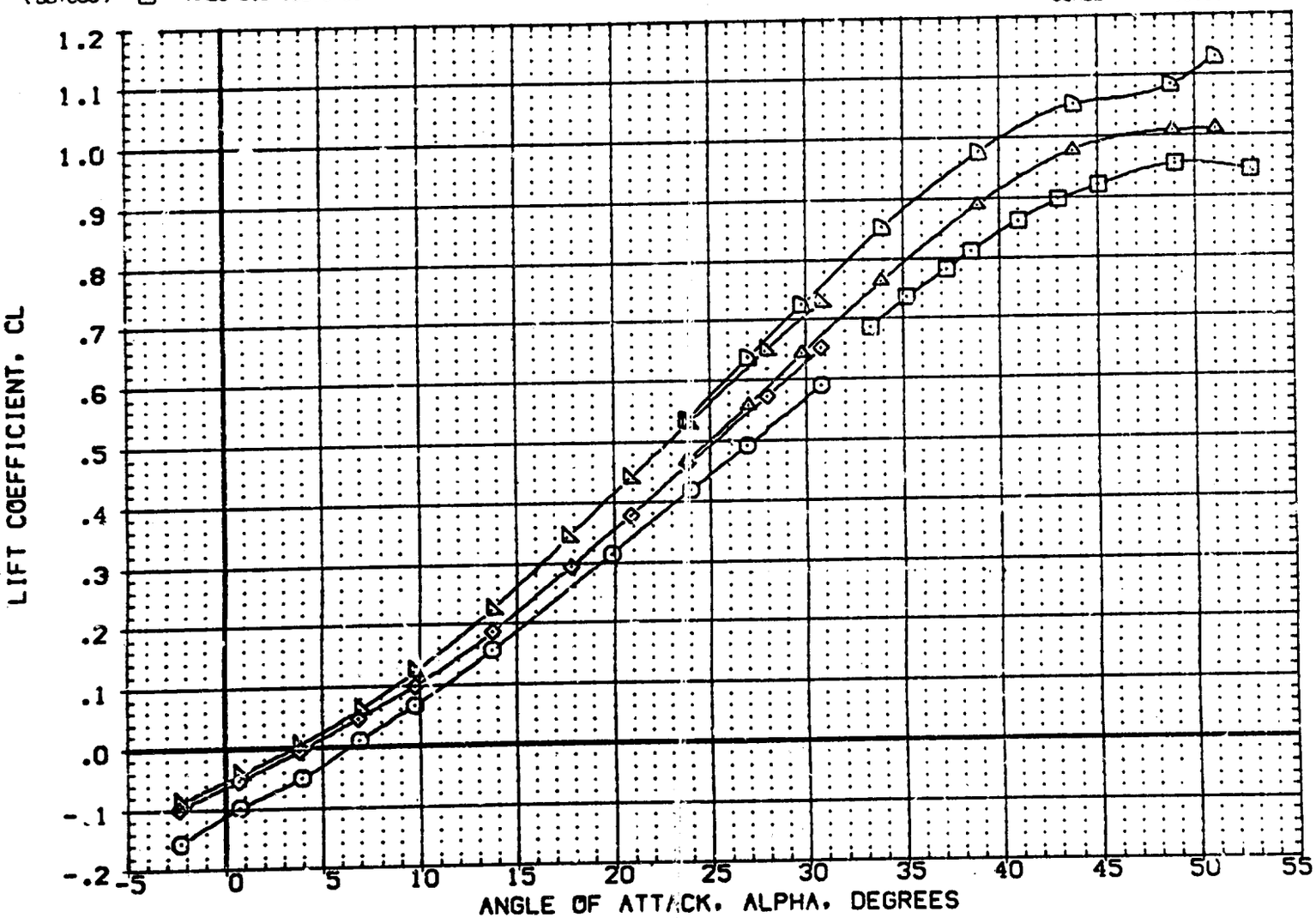


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(KBY005)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY003)	⊲	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	▷	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

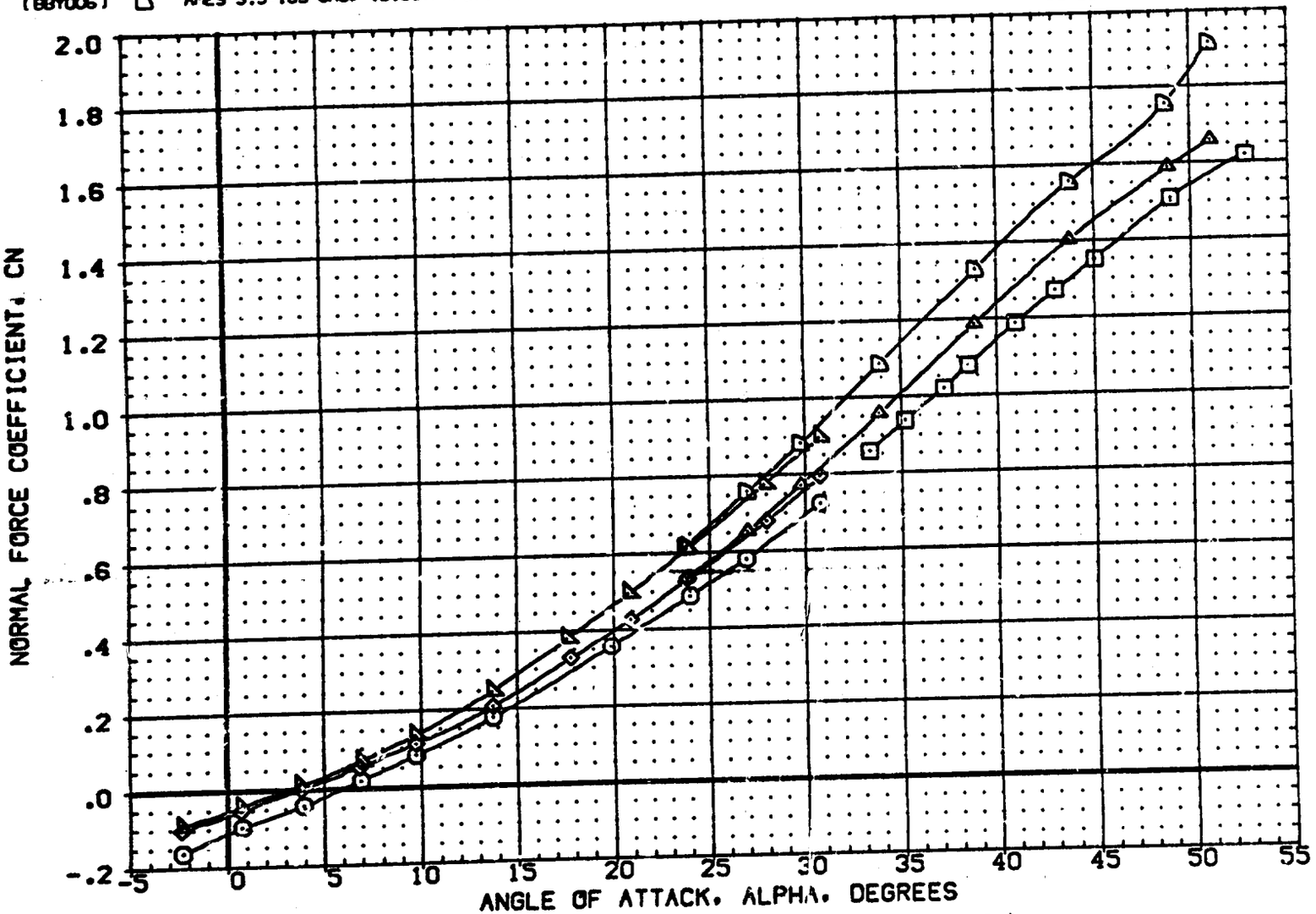


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DOFLAP	SPOBRK
(KBY005)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY008)	▽	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

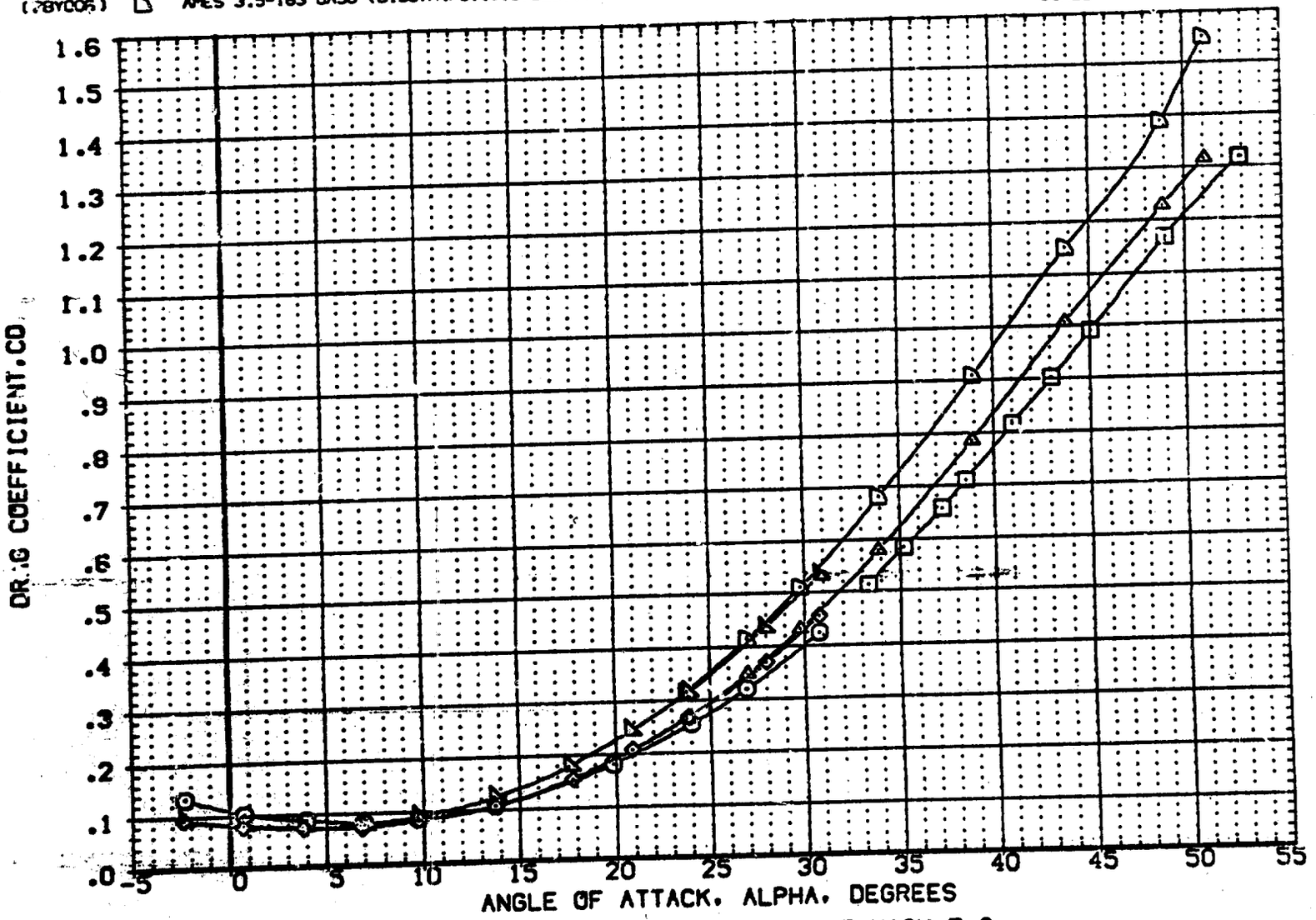


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(KBY005)	◇	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	△	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	□	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	○	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(89Y008)	◇	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(89Y006)	△	AMES 3.5-163 OA5B (B13C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

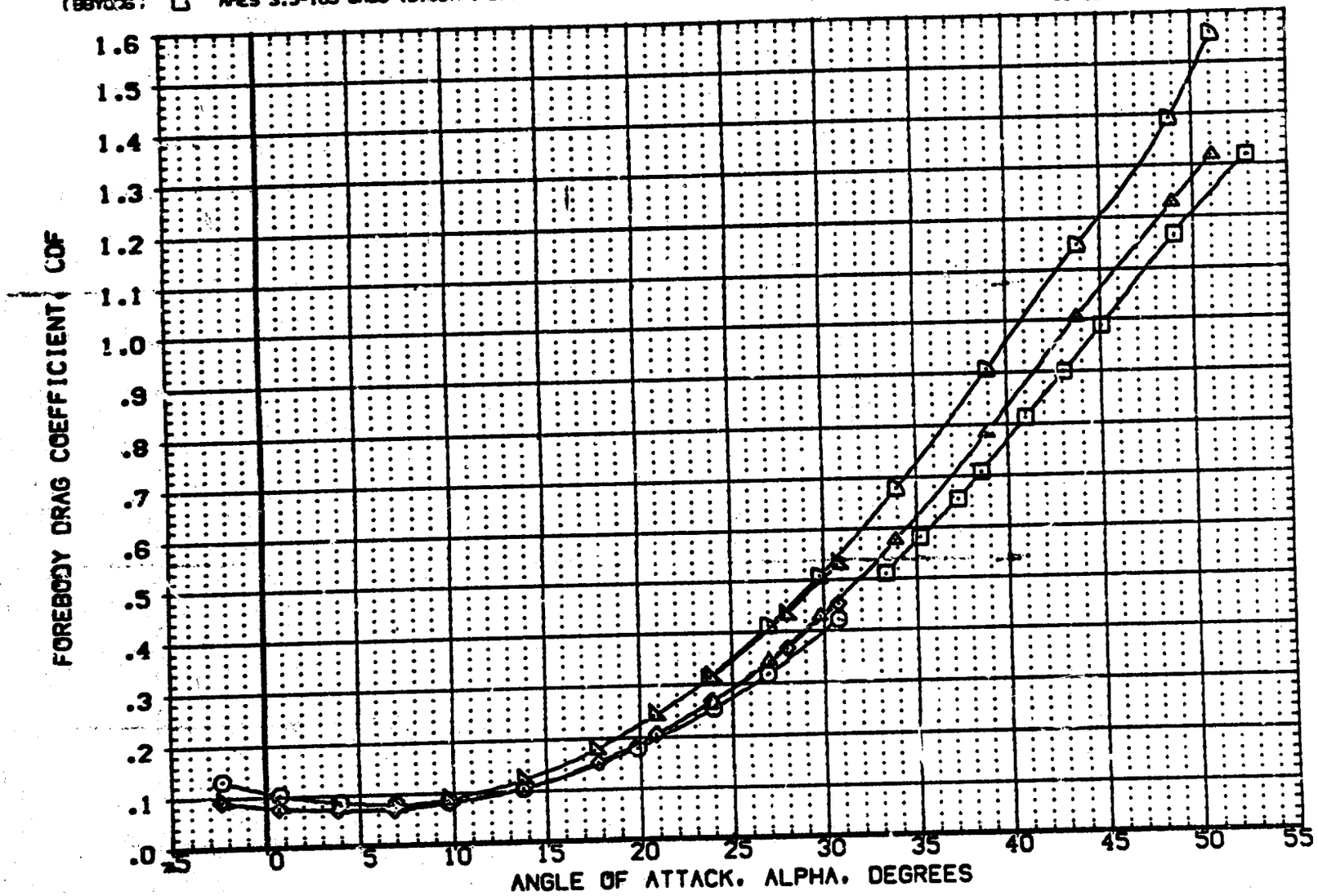


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBAY
(KBY005)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	△	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(B3Y008)	▽	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(B3Y006)	D	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

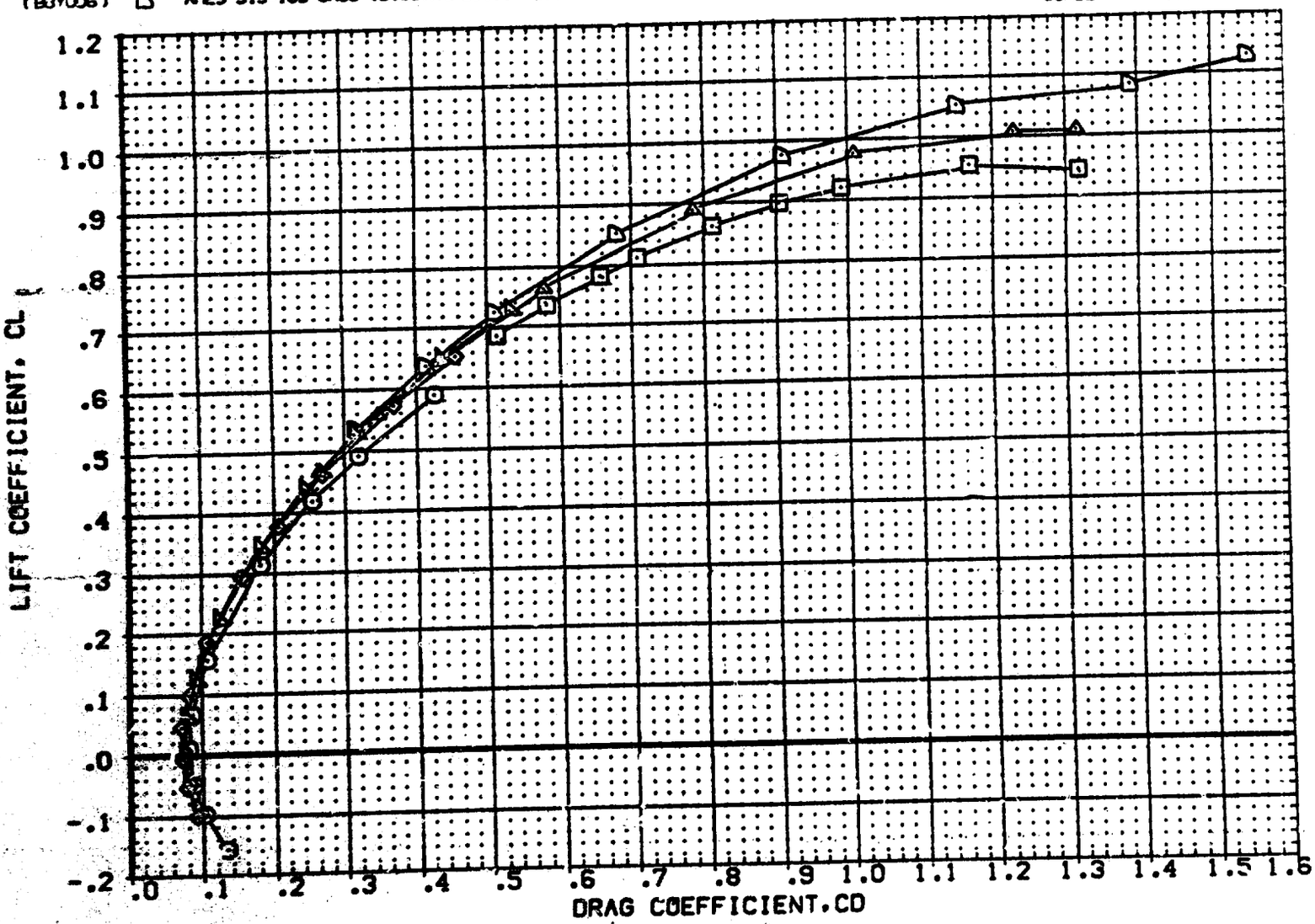


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(KBY005)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBYC02)	△	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY001)	▽	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	◁	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

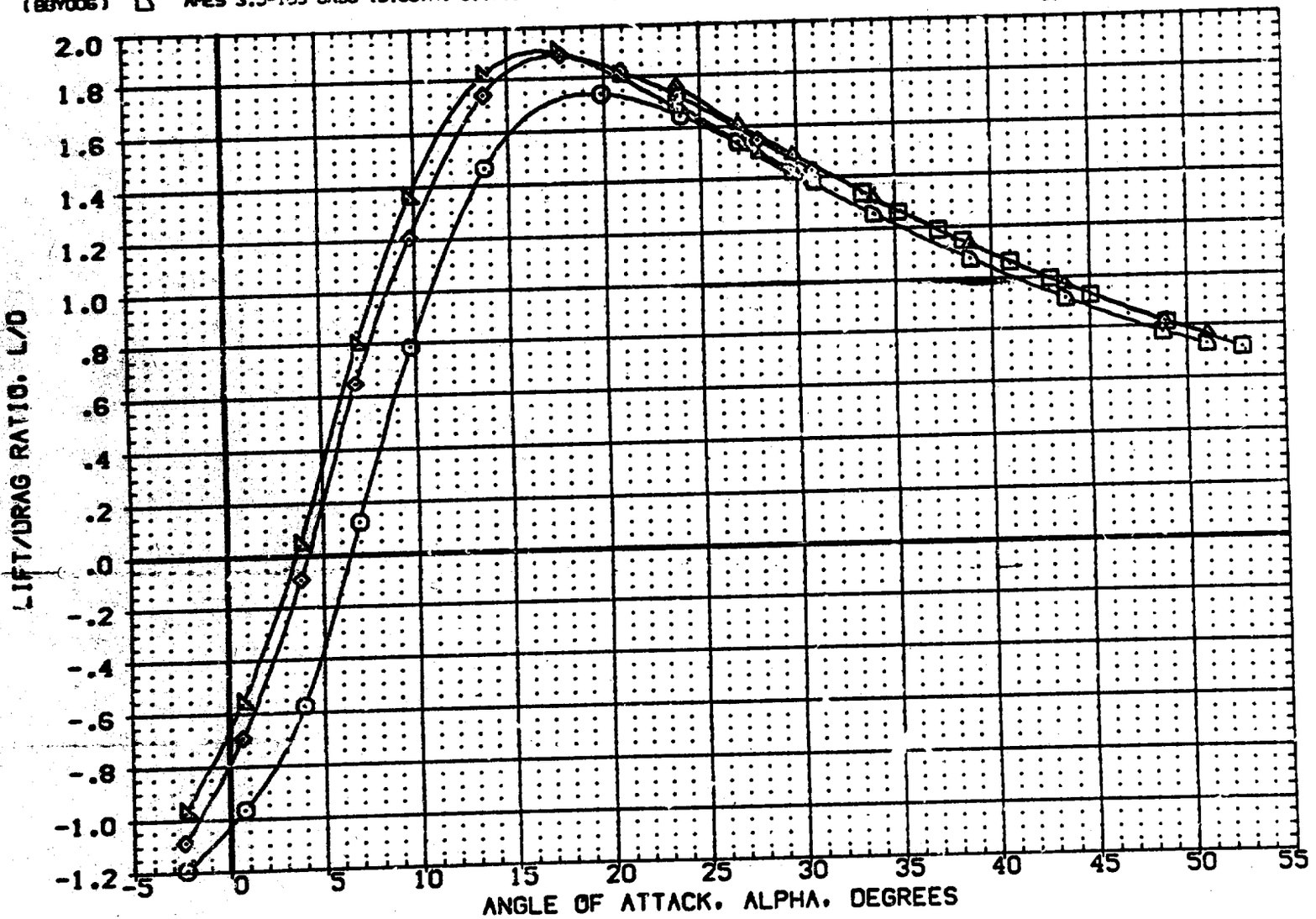


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BODYFLAP	SPDBRK
(KBY005)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	△	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY008)	▽	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	▷	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

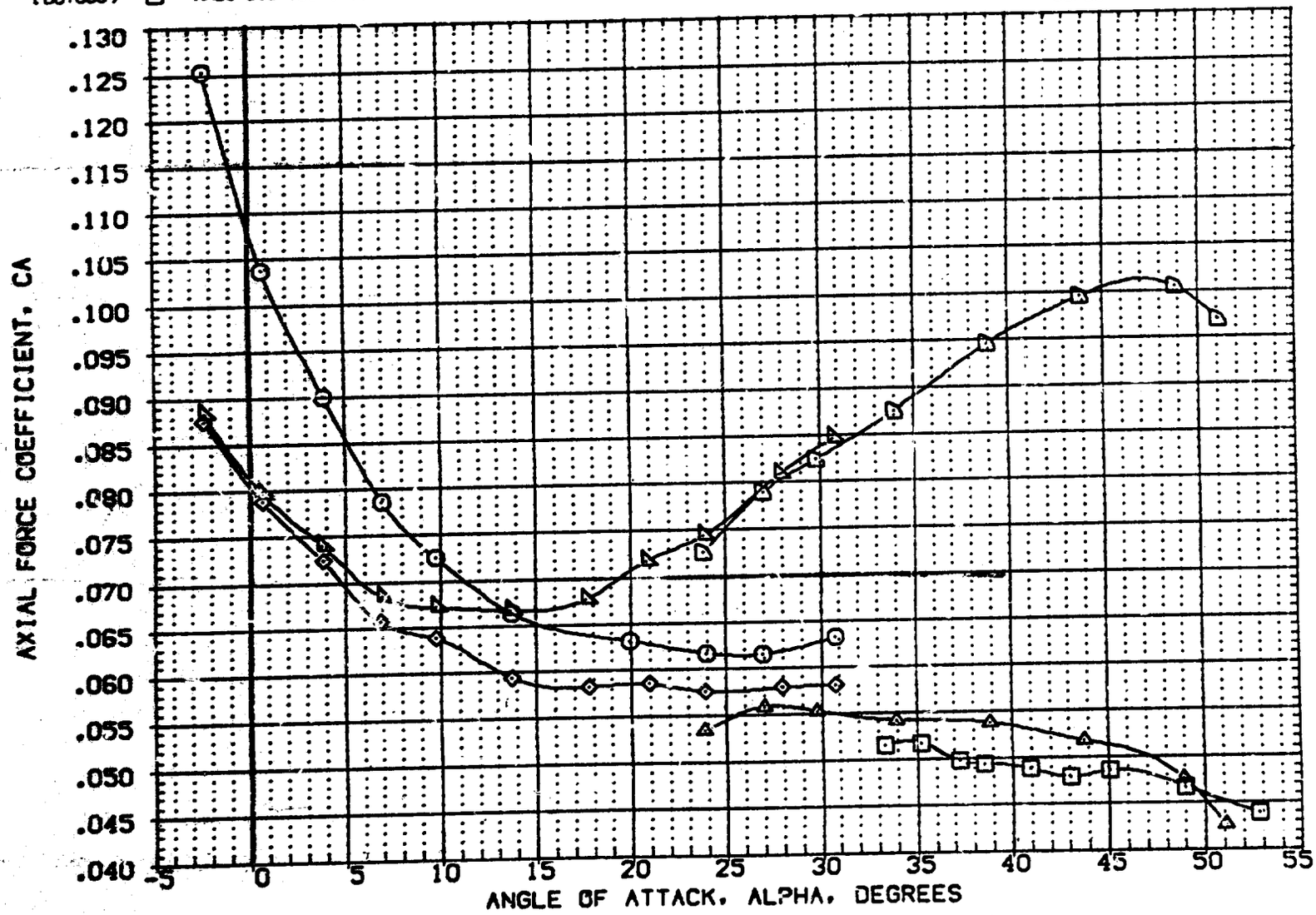


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(KBY005)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY008)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

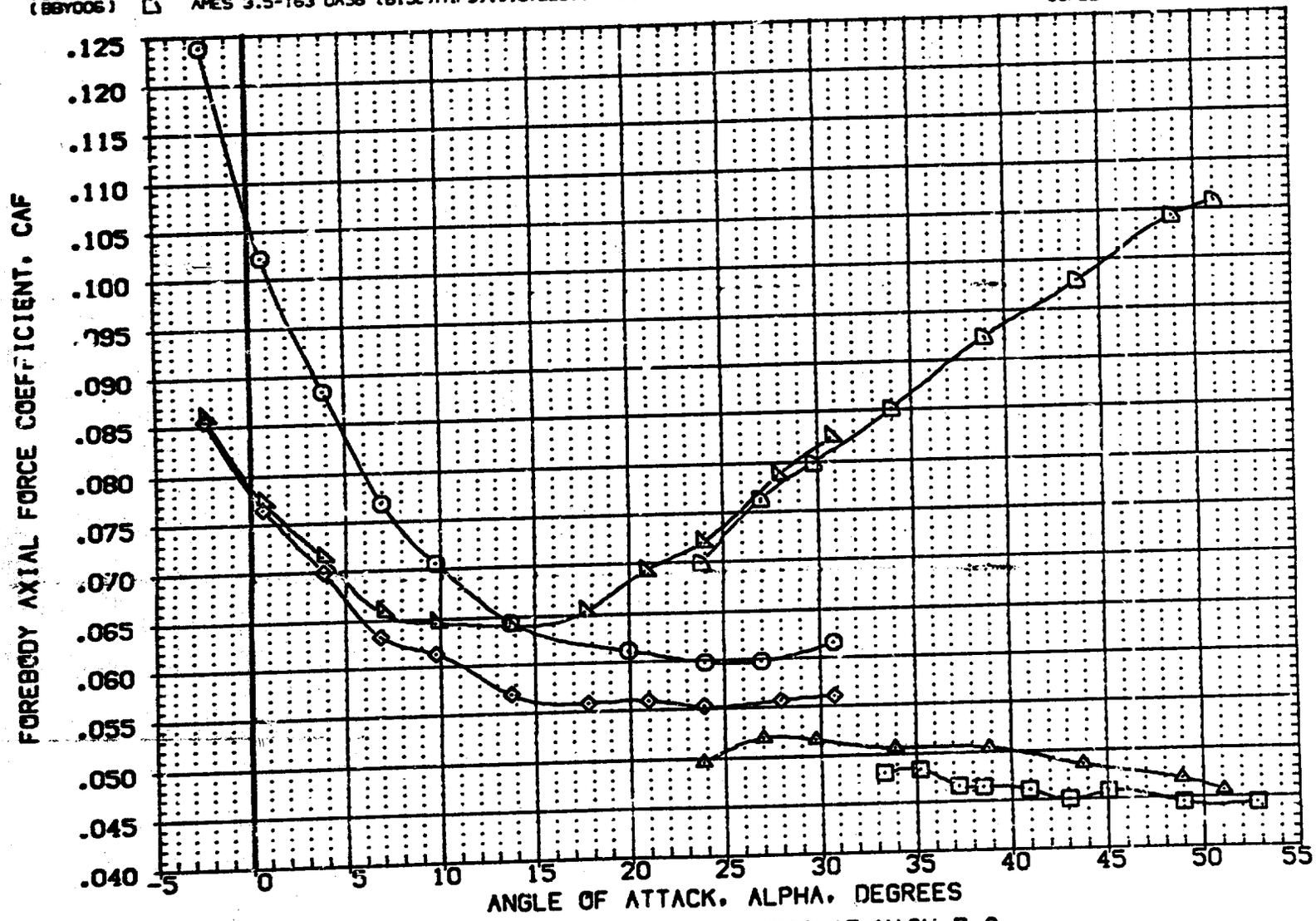


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

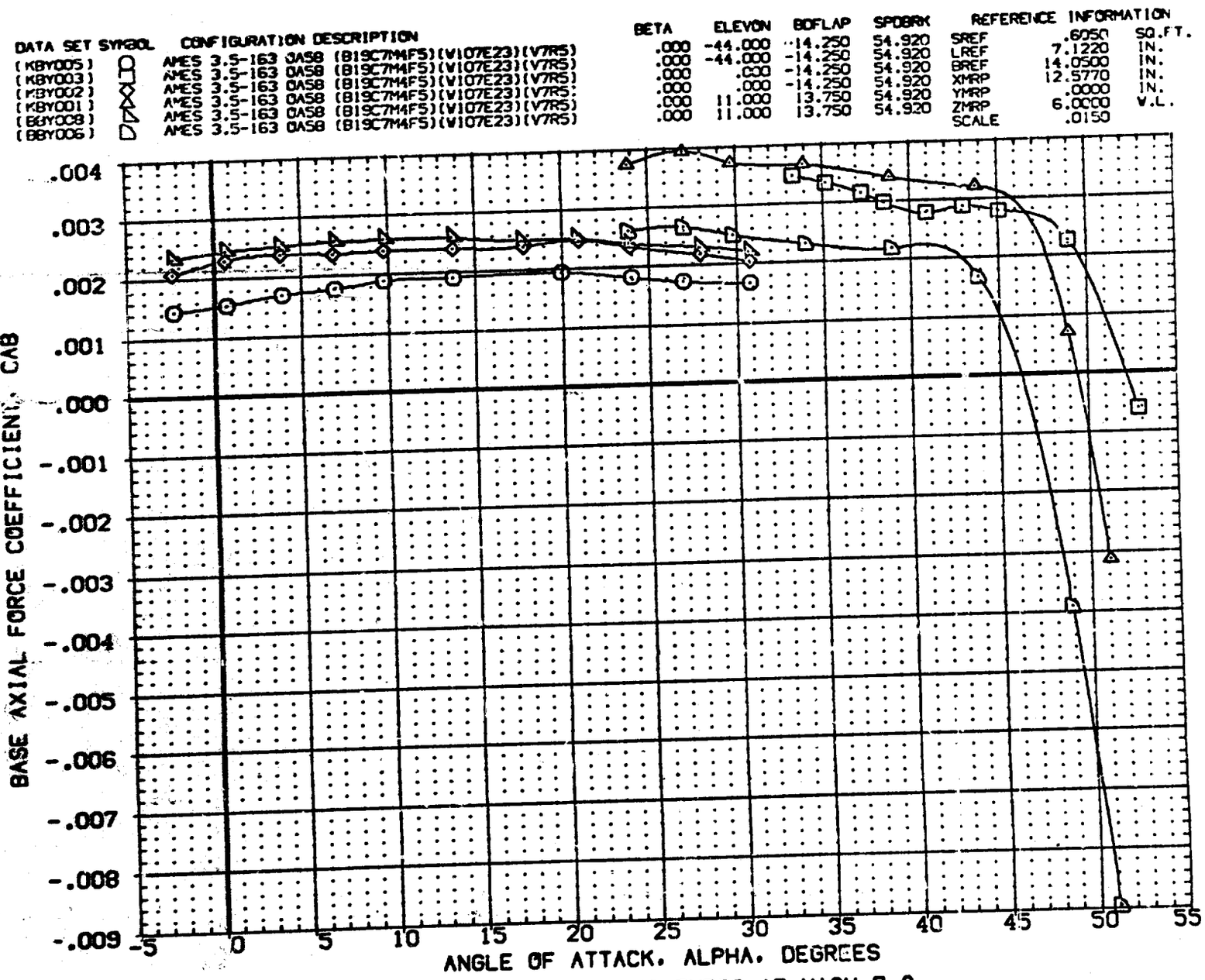


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(KBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY008)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
YMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

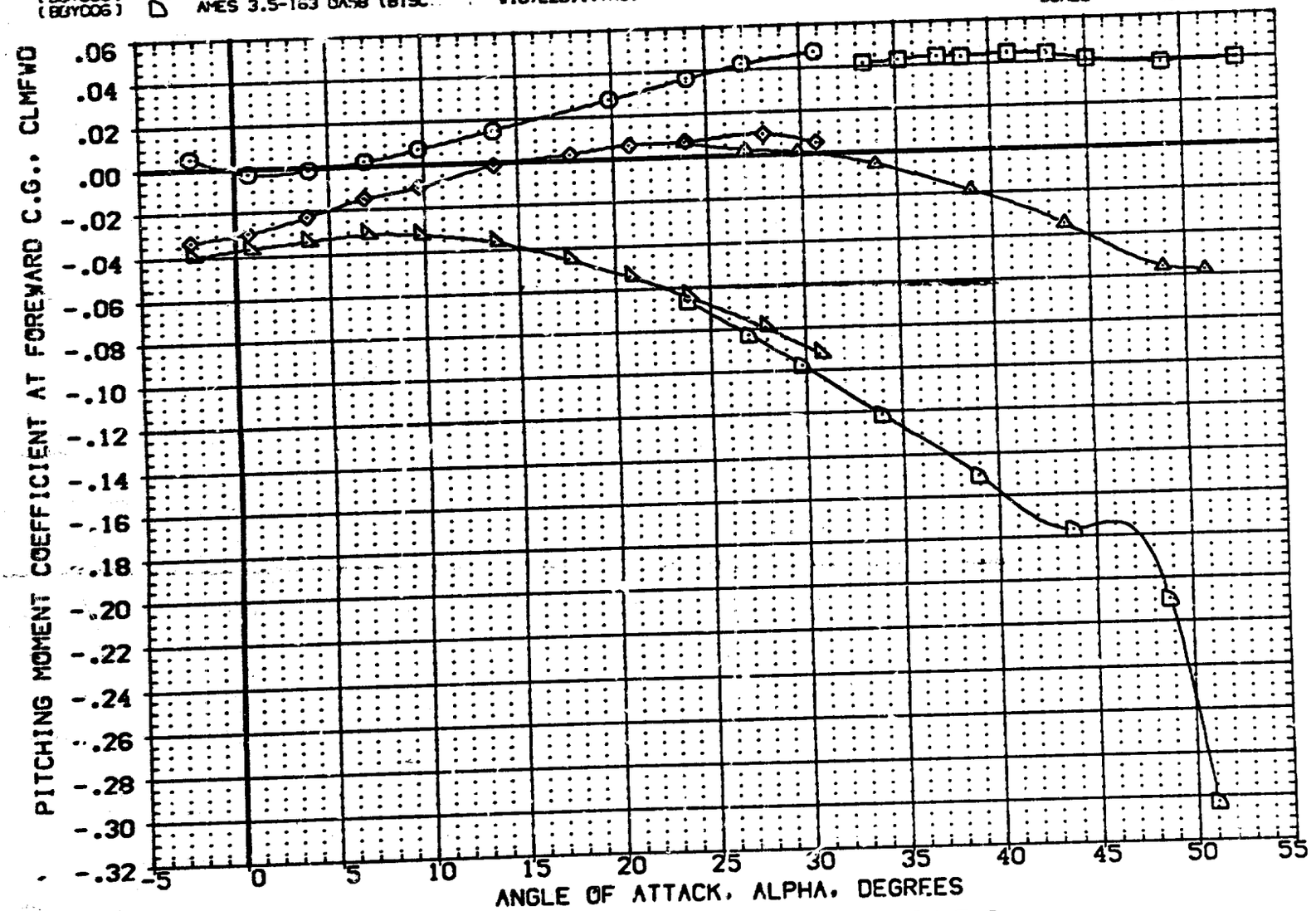


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SHOSRK
(KBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY008)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY00E)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

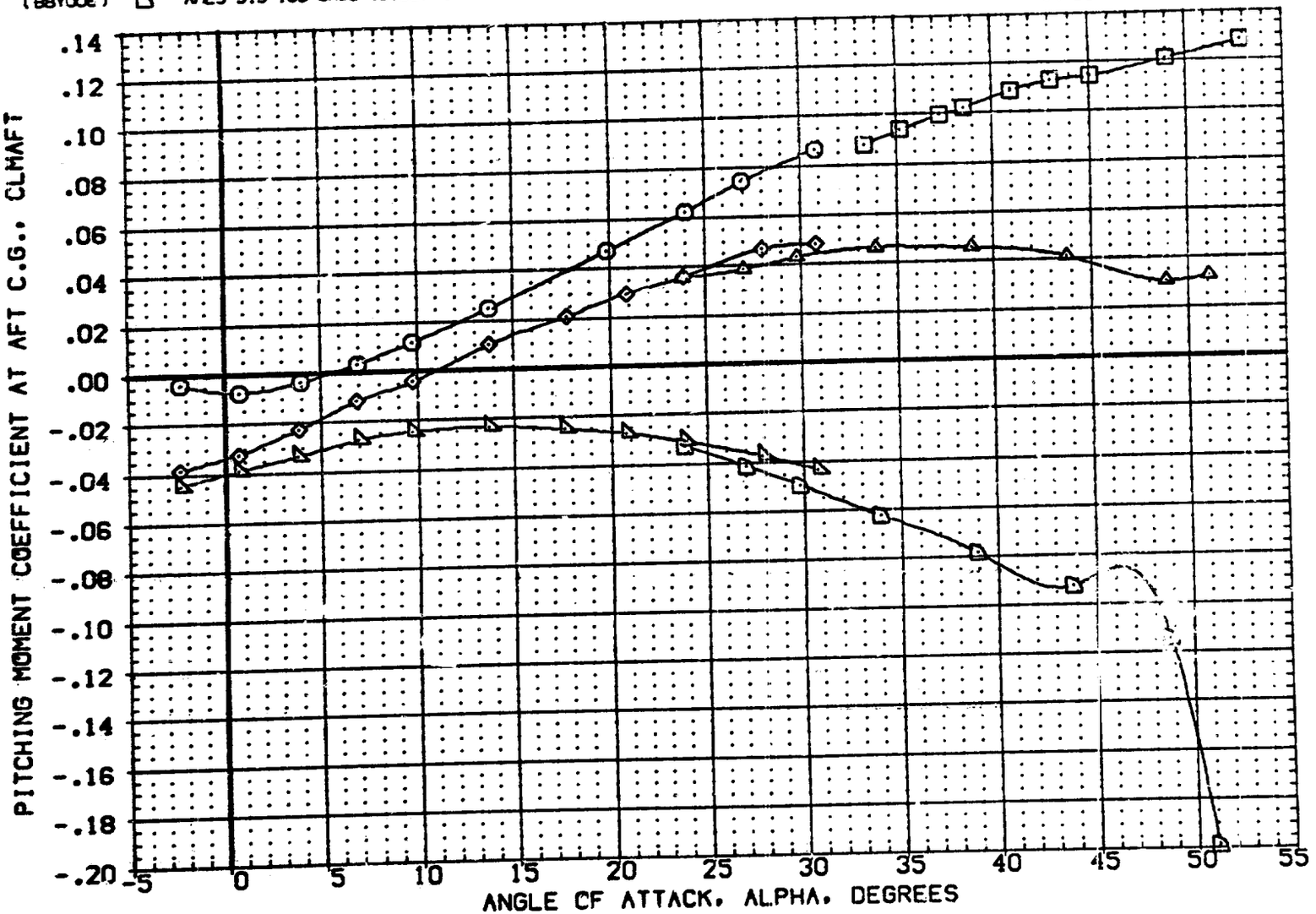


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(KBY005)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	△	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY008)	▷	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(BBY006)	▷	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

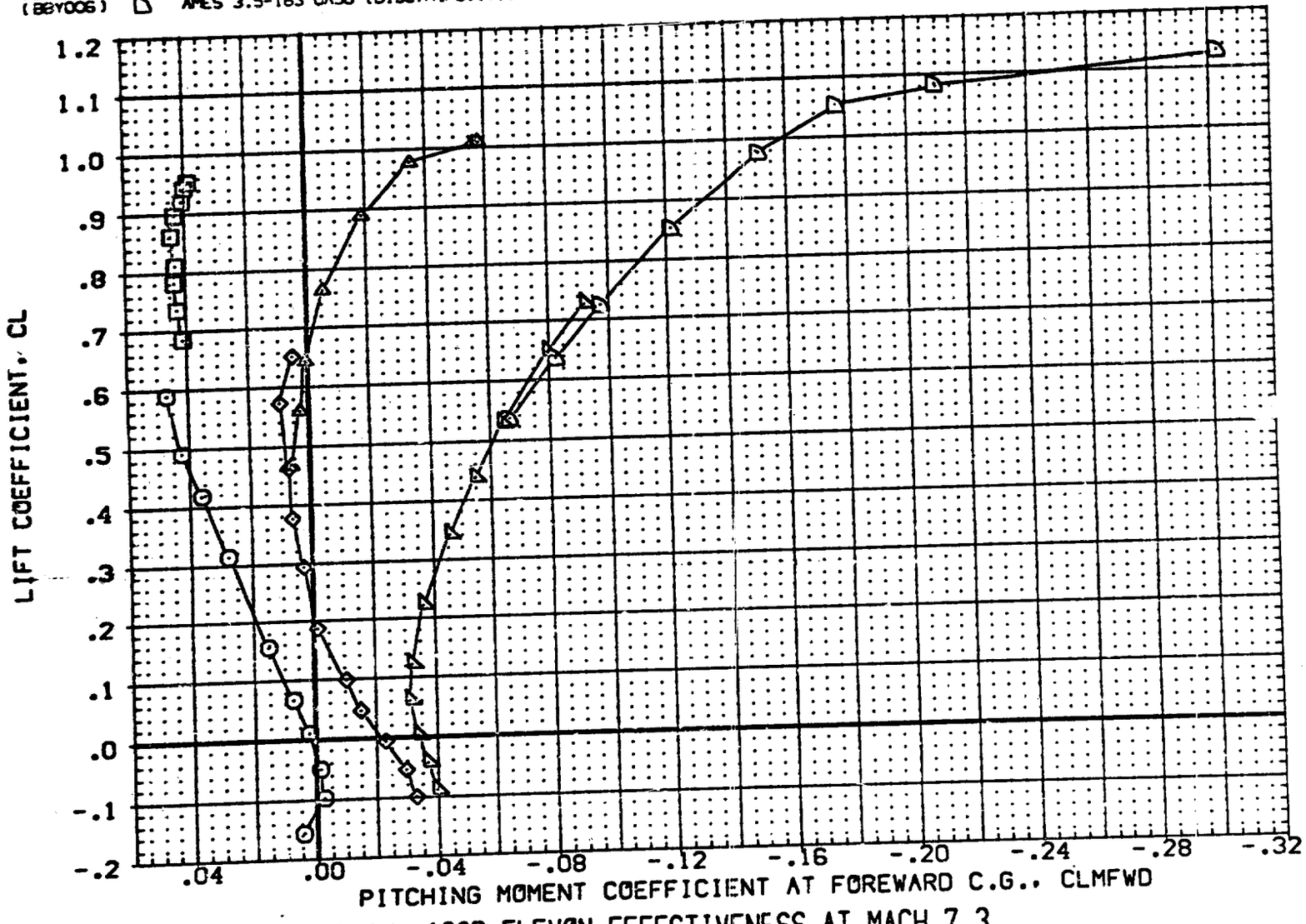


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(KBY005)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY003)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(KBY002)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(B8Y008)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920
(B8Y006)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0:50	

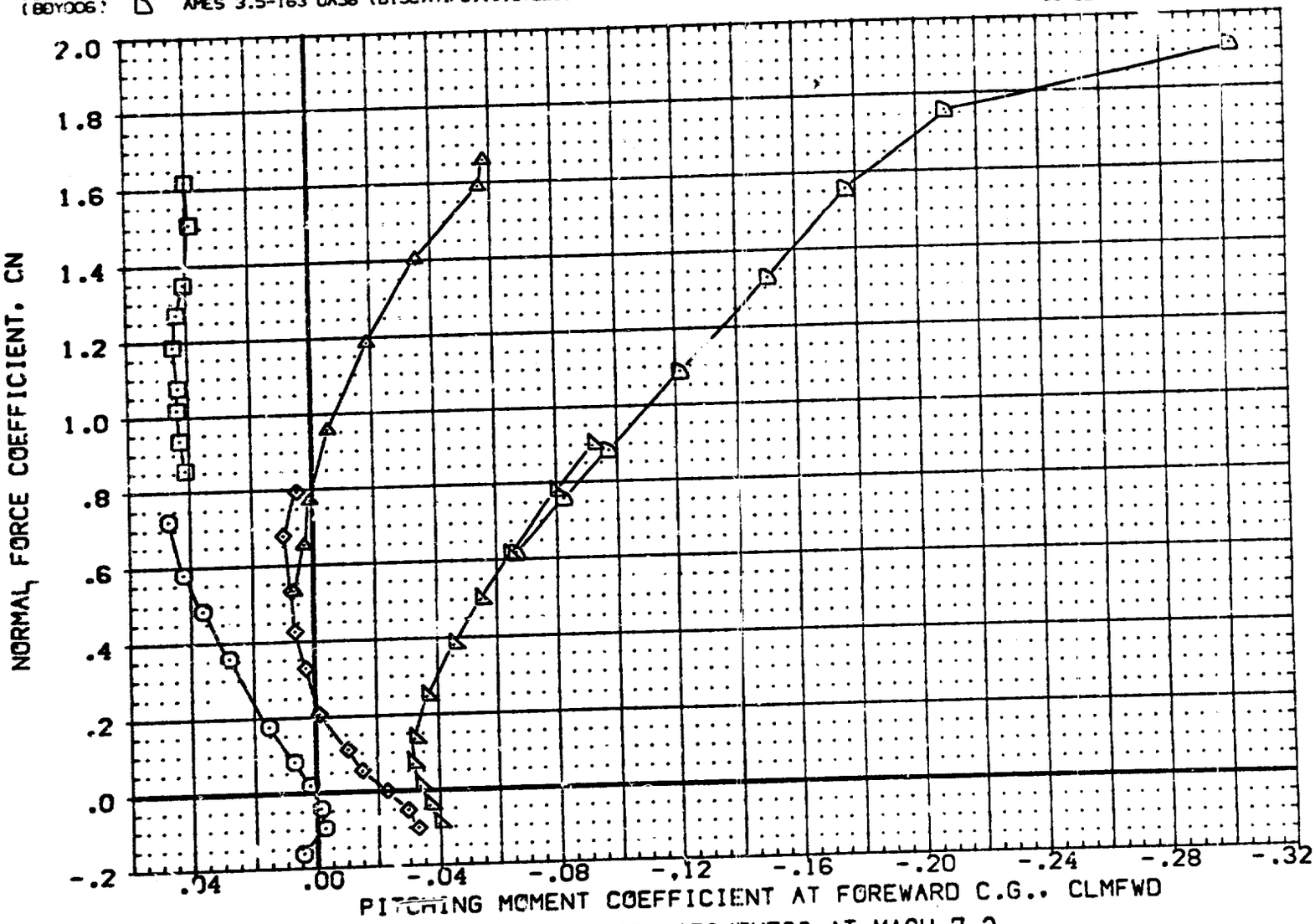


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

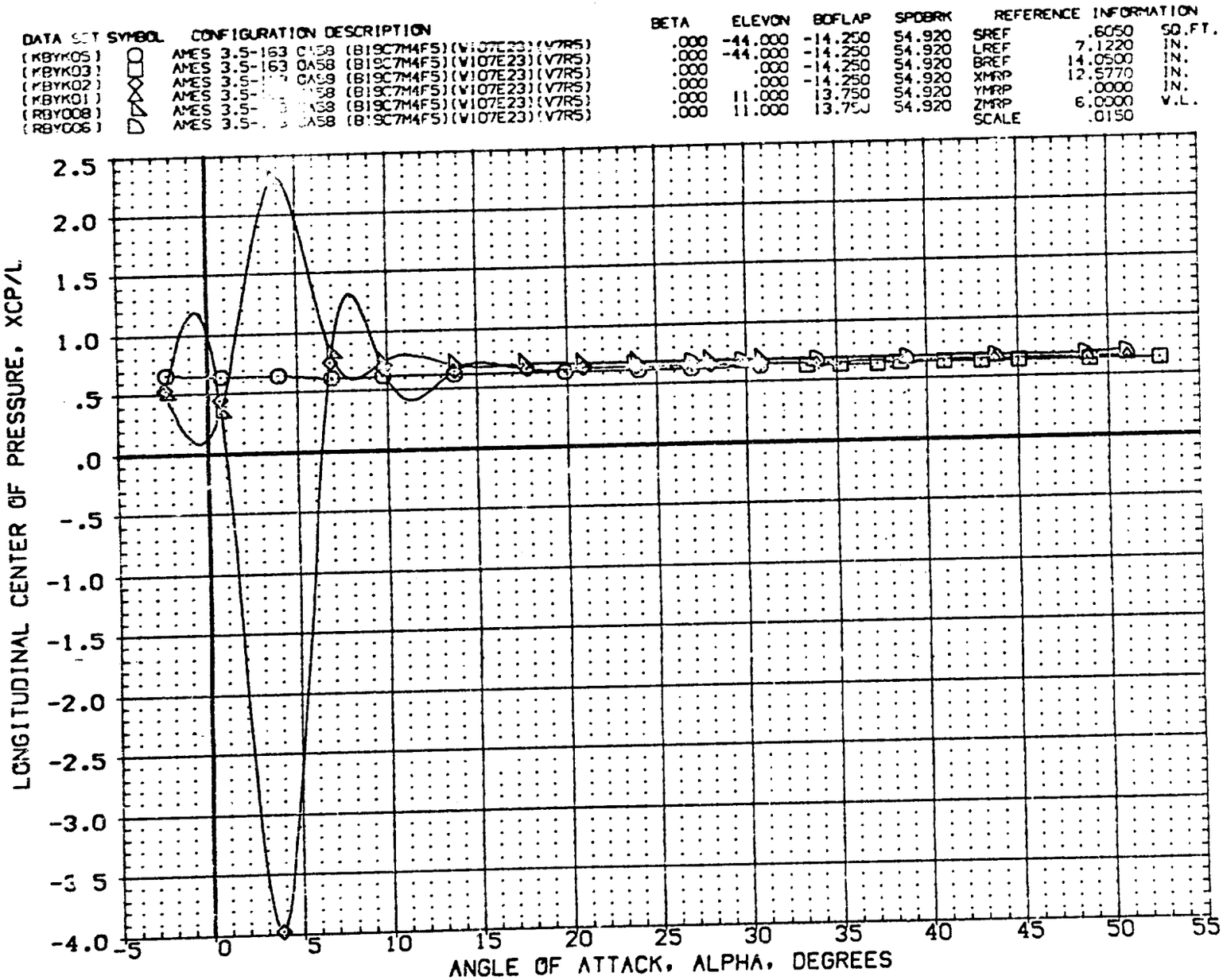


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPDBRK
(HBYOC5)	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	54.920
(HBYOC3)	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	54.920
(EBYOC8)	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	54.920
(EBYOC6)	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

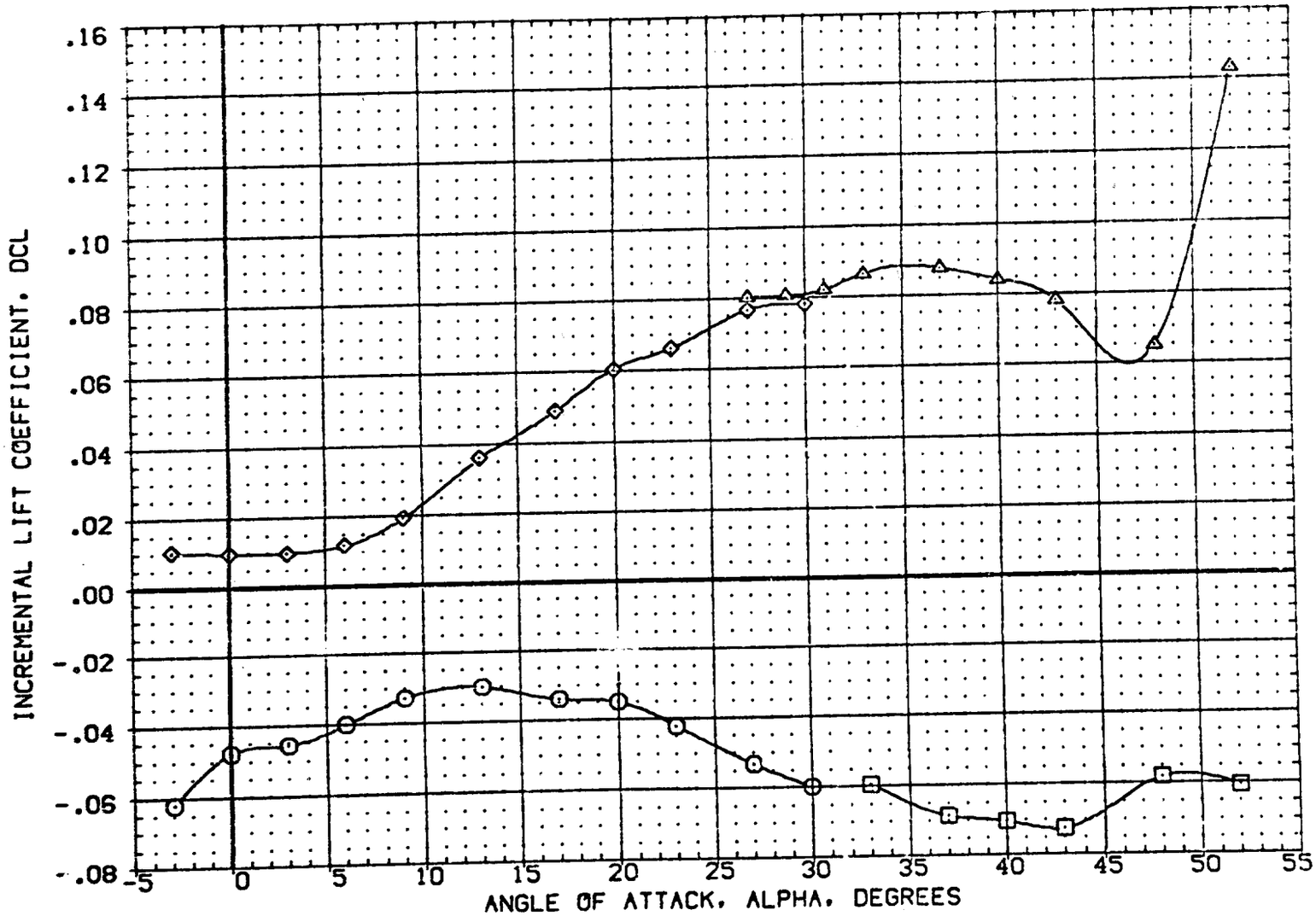


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005) ○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003) □	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008) ◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006) △	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

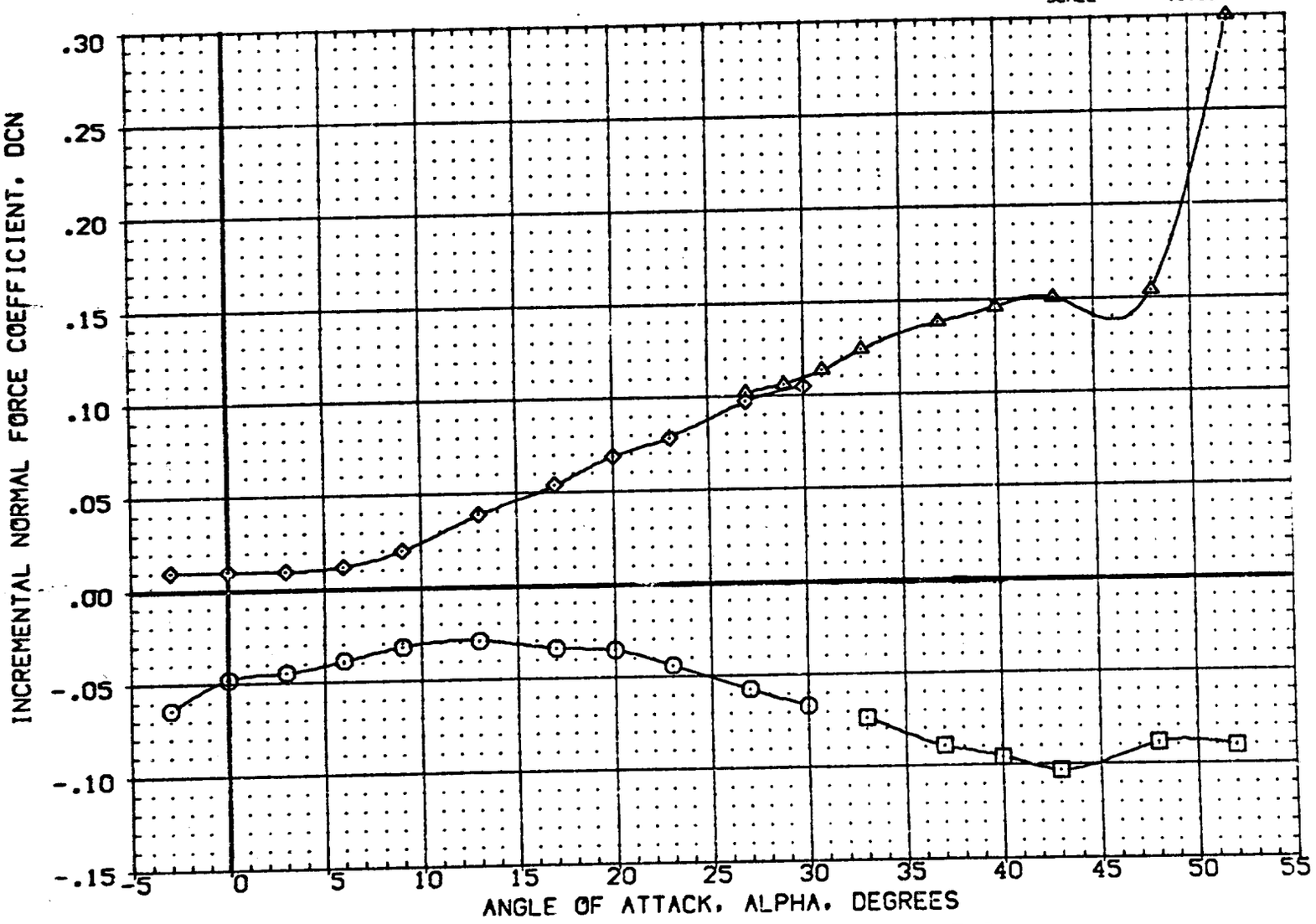


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006)	△	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0530	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

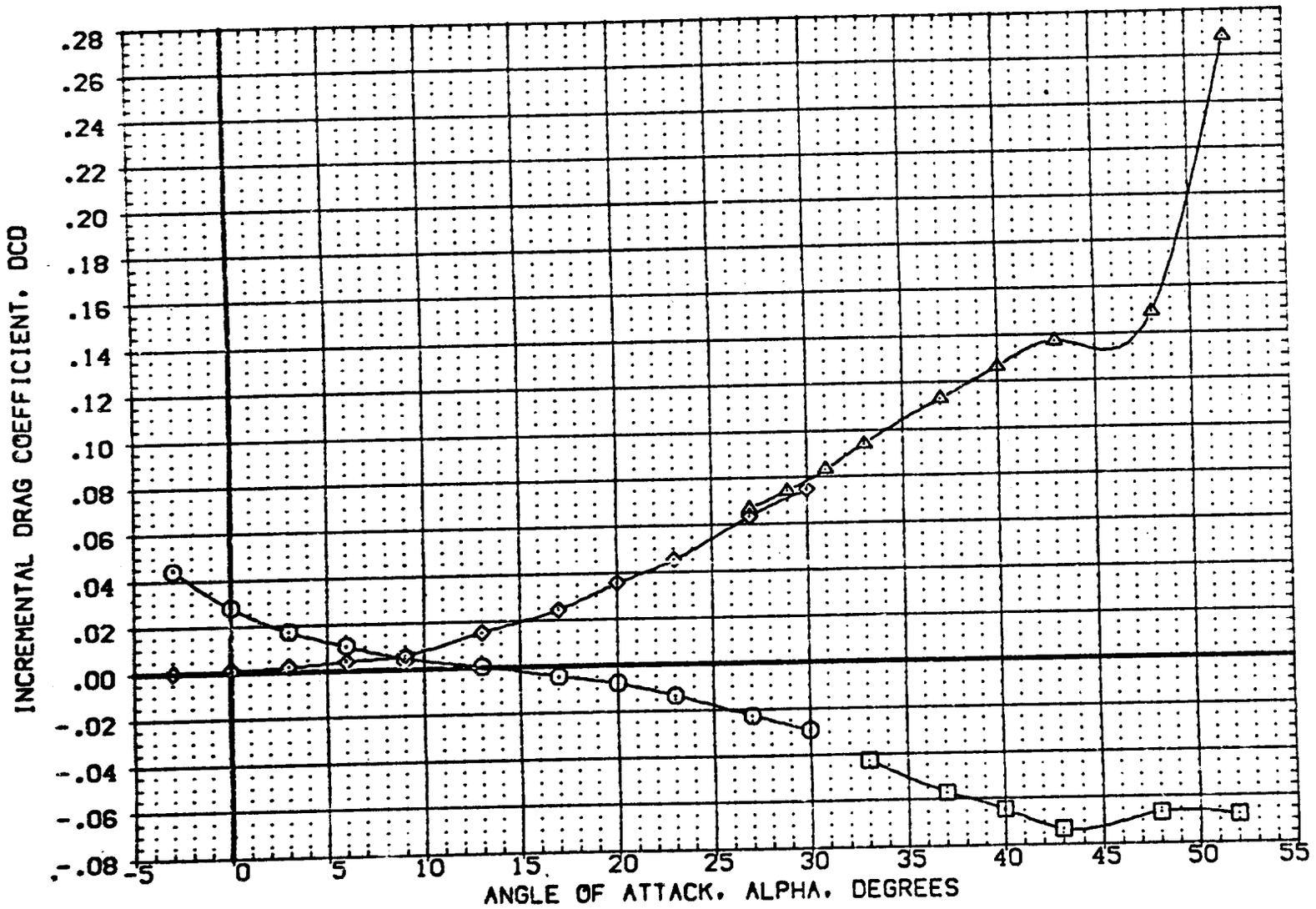


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008)	AMES 3.5- 3 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

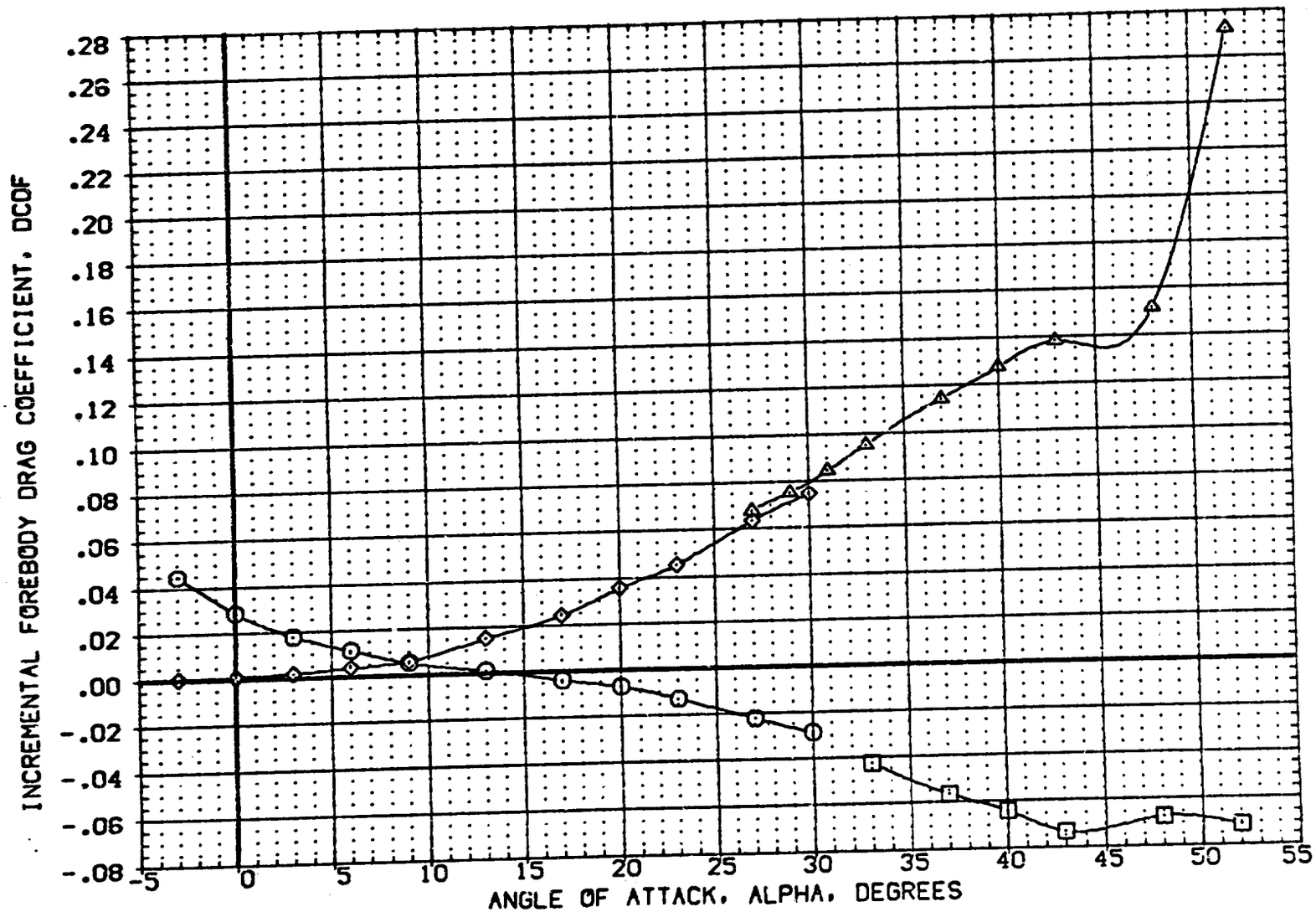


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

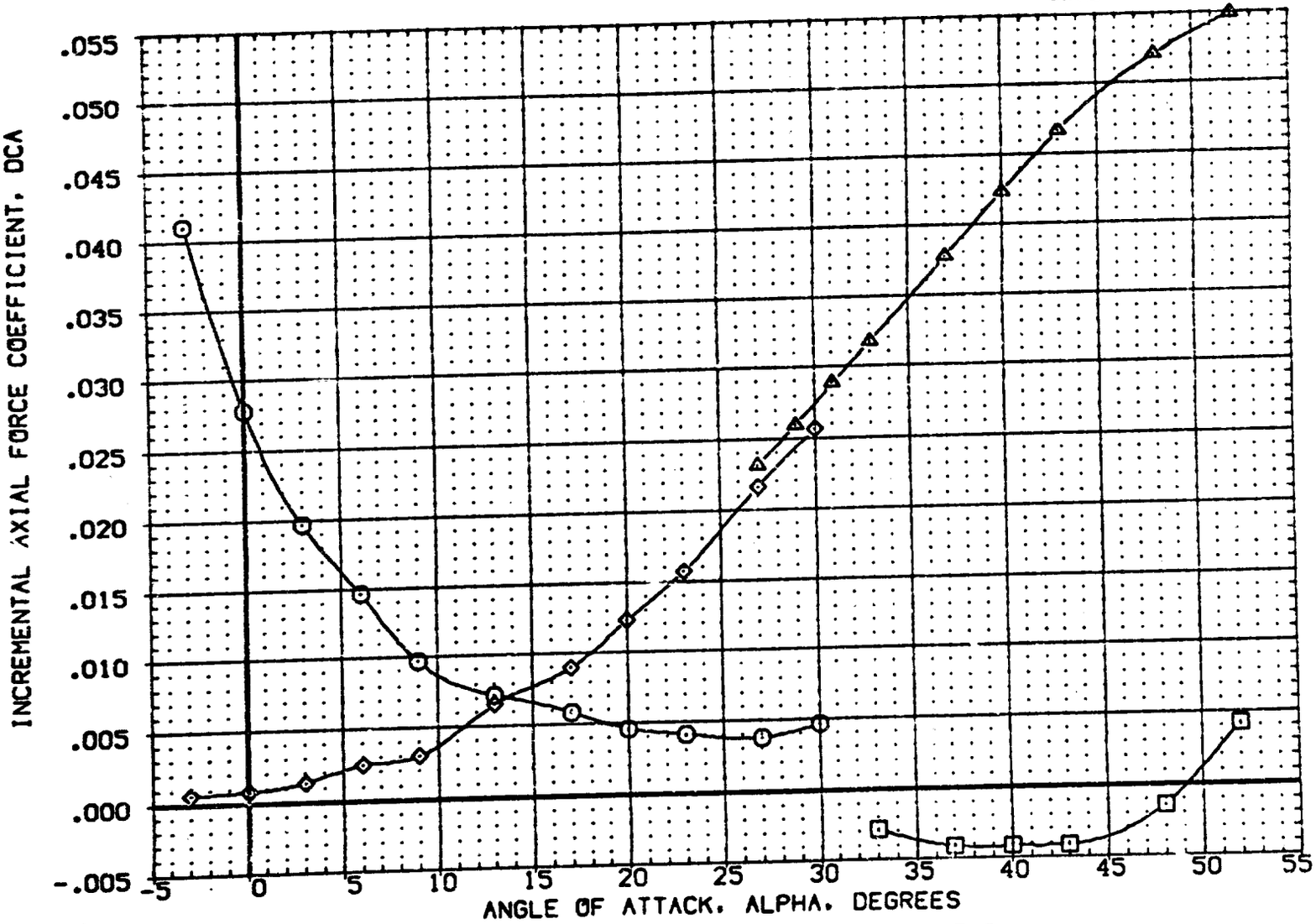


FIG. 5 CONFIGURAT ON -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	54.920
(EBYC08)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920
(EBYC06)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

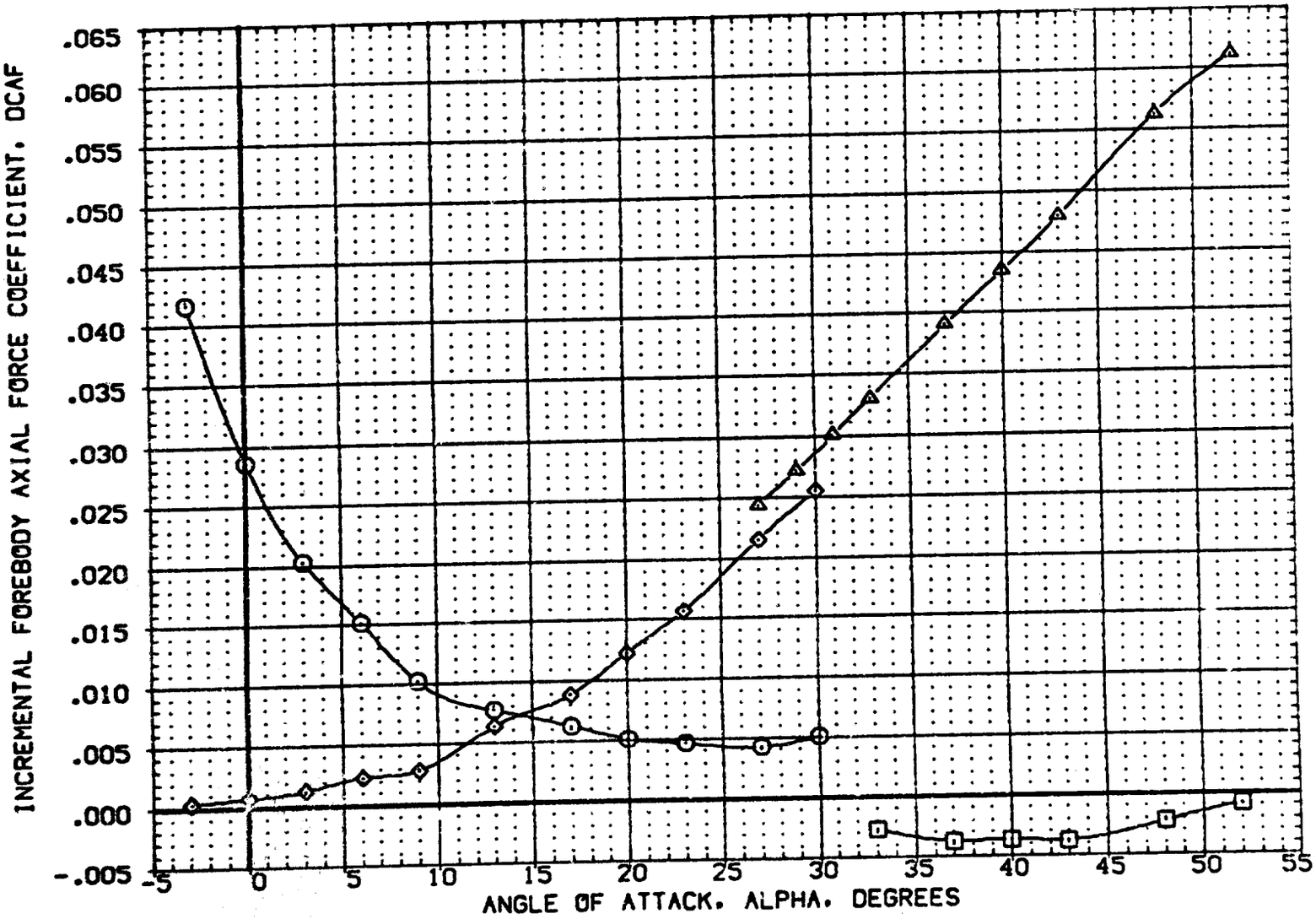


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006)	AMES 3.5-163 OA58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

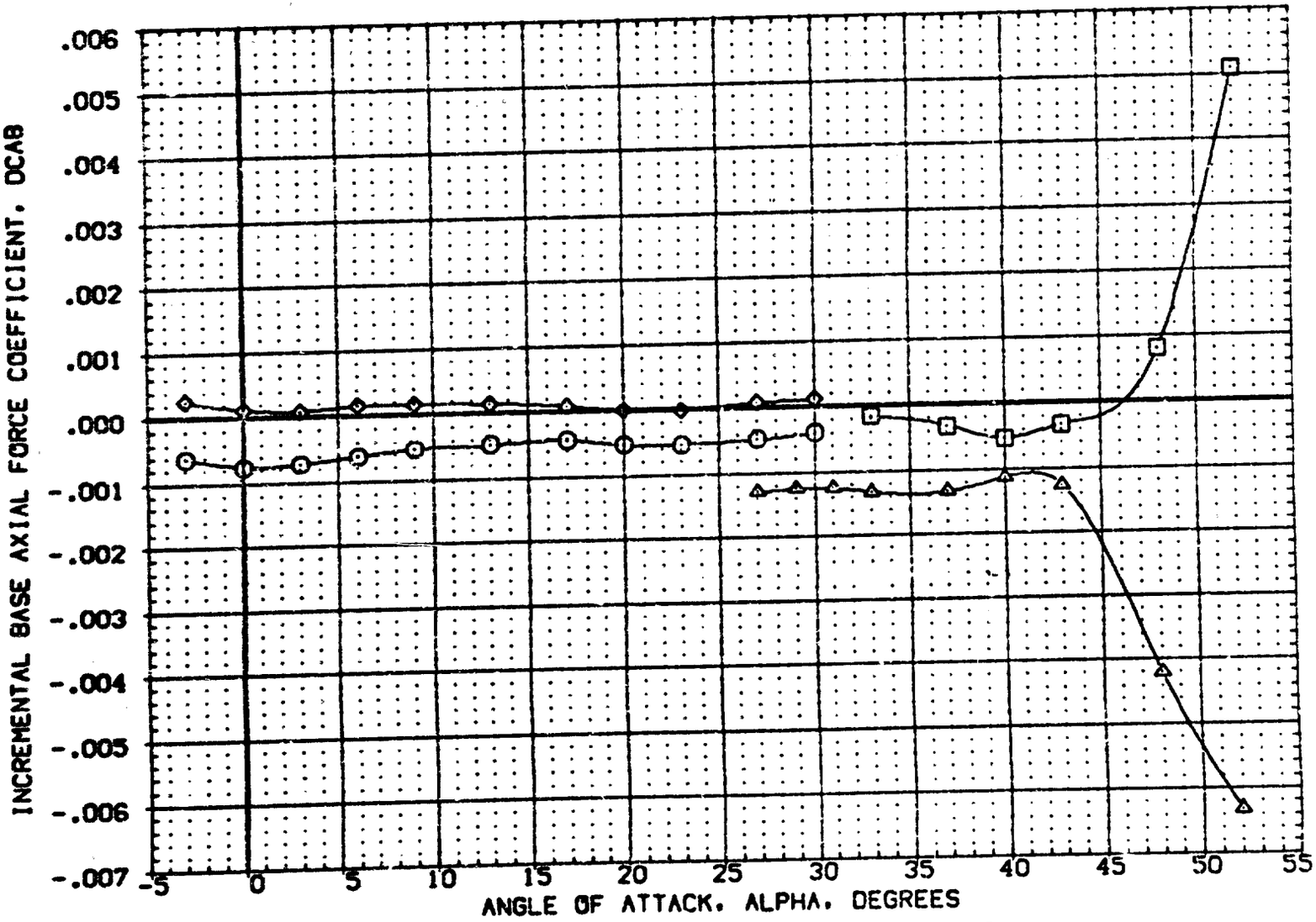


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

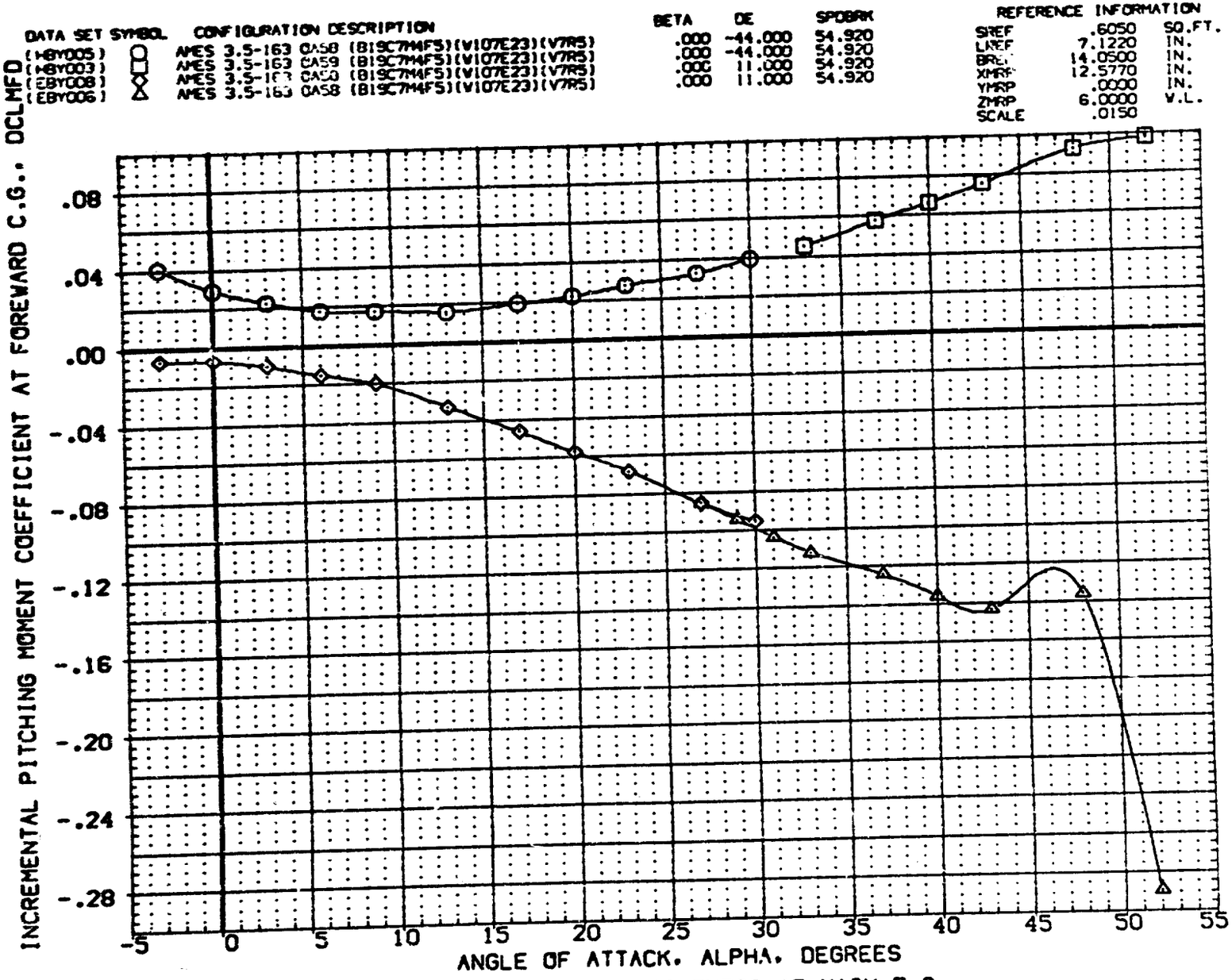


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	SPOBRK
(HBY005)	○	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(HBY003)	□	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	54.920
(EBY008)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920
(EBY006)	△	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0300	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

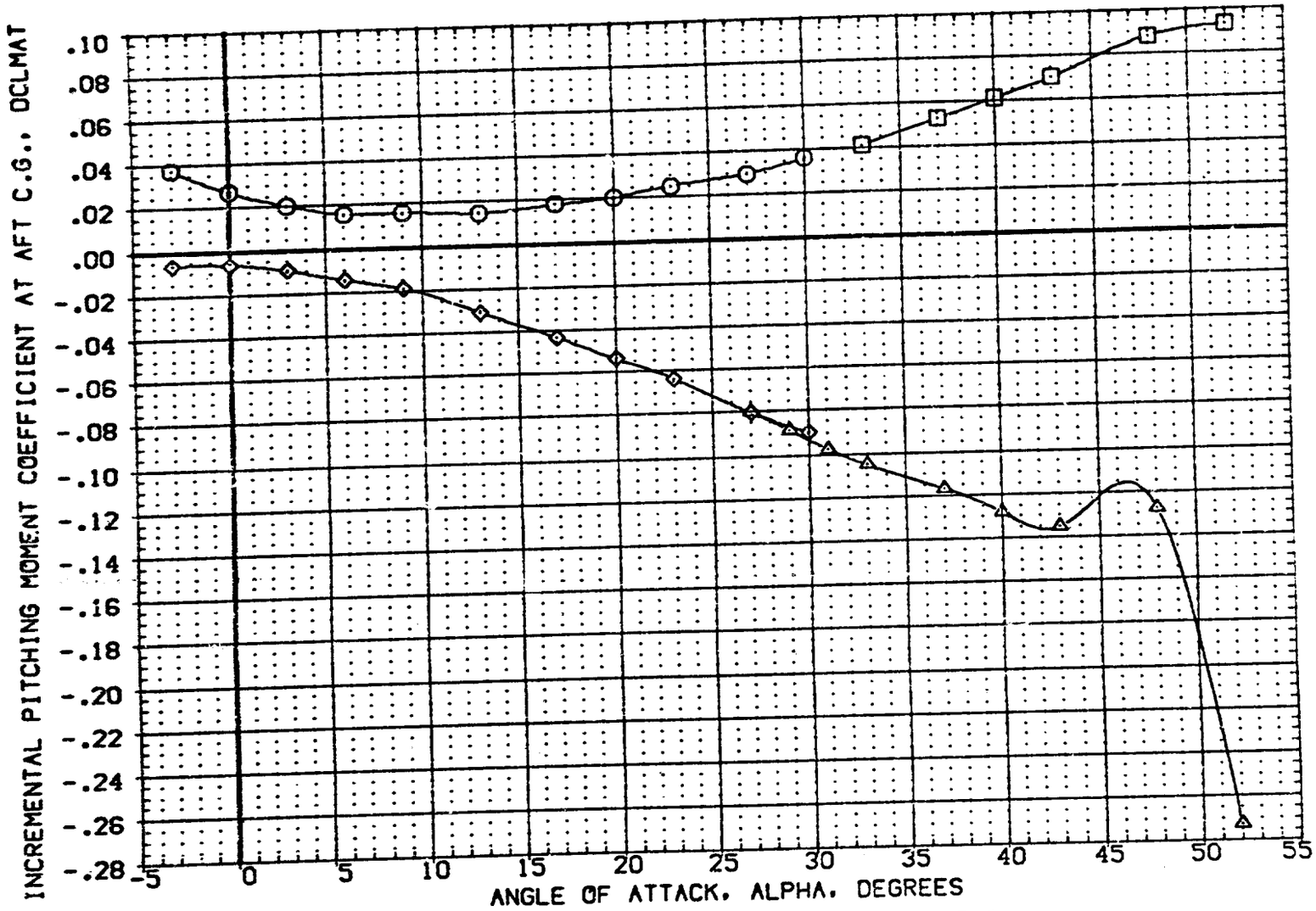


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

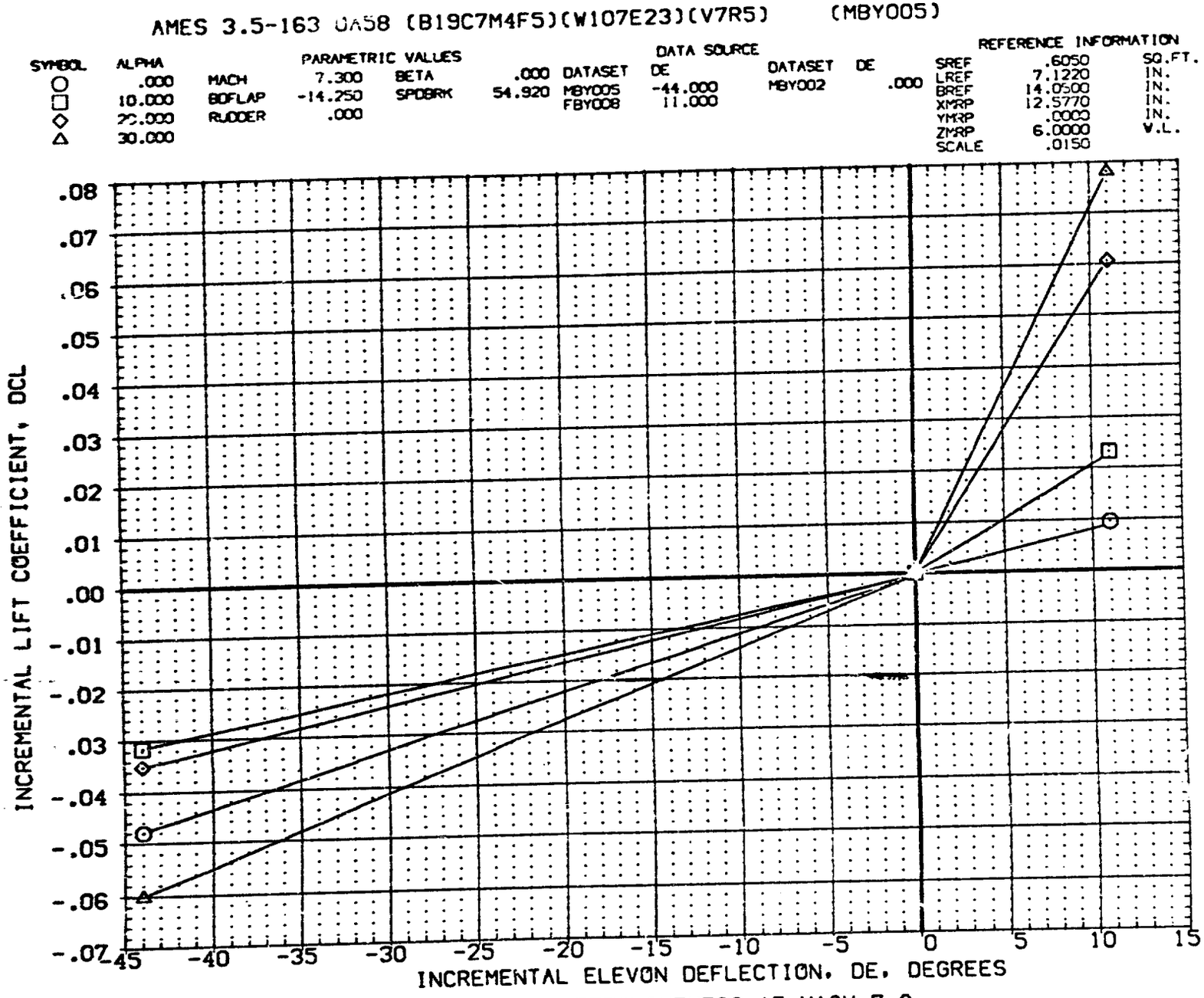


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5) (MBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	10.000	BDFLAP	-14.250	SPDBRK	54.920	MBY005	-44.000	MBY002	.000	LREF	7.1220	IN.
◇	20.000	RUDDER	.000			FBY008	11.000			BREF	14.0500	IN.
△	30.000									XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

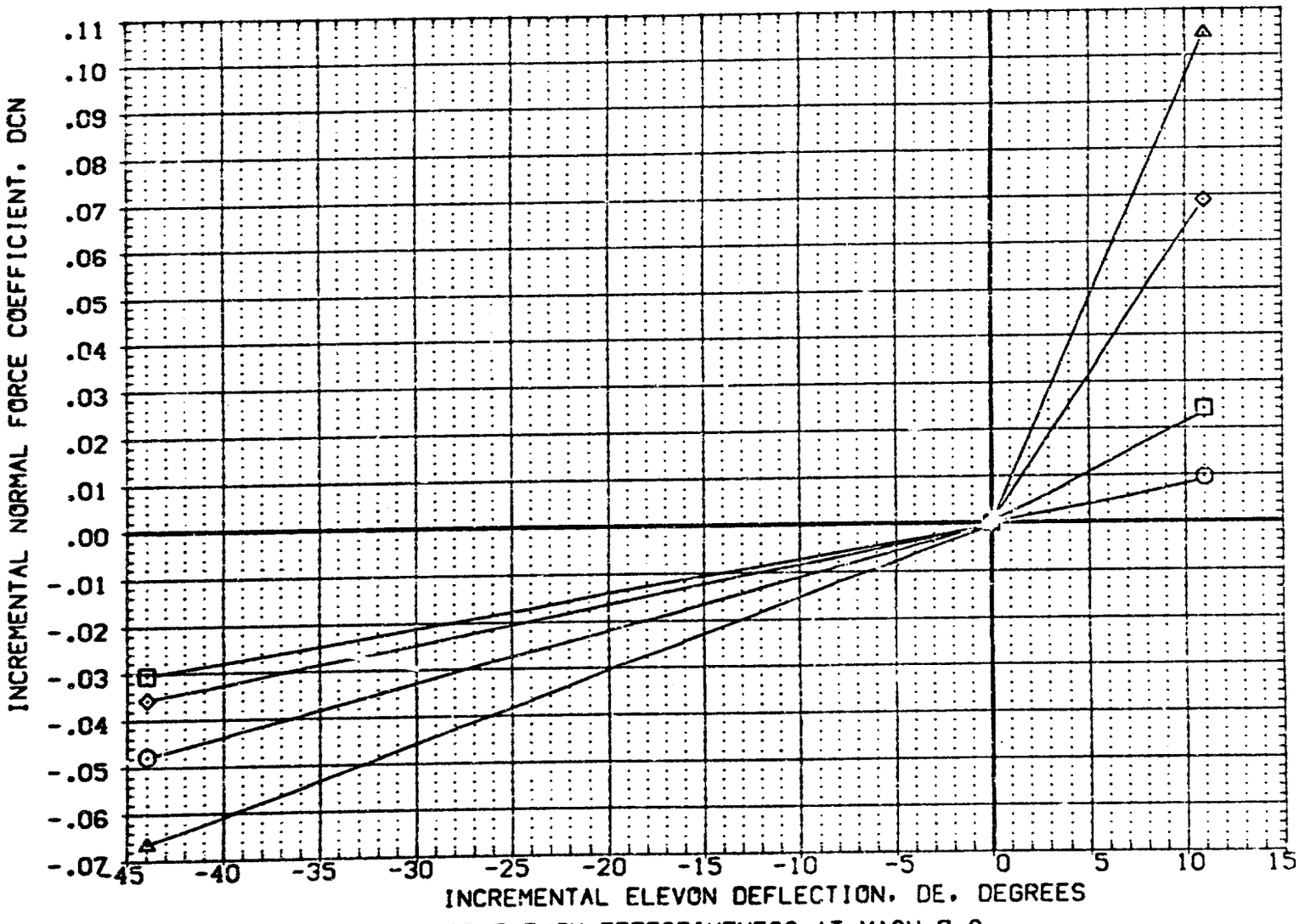


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (MBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DC	SREF	.6050	SQ.FT.
□	10.000	BOFLAP	-14.250	SPOBRK	54.920	MBY005	-44.000	MBY002	.000	LREF	7.1220	IN.
◇	20.000	RUDDER	.000			FBY008	11.000			BREF	14.0500	IN.
△	30.000									XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

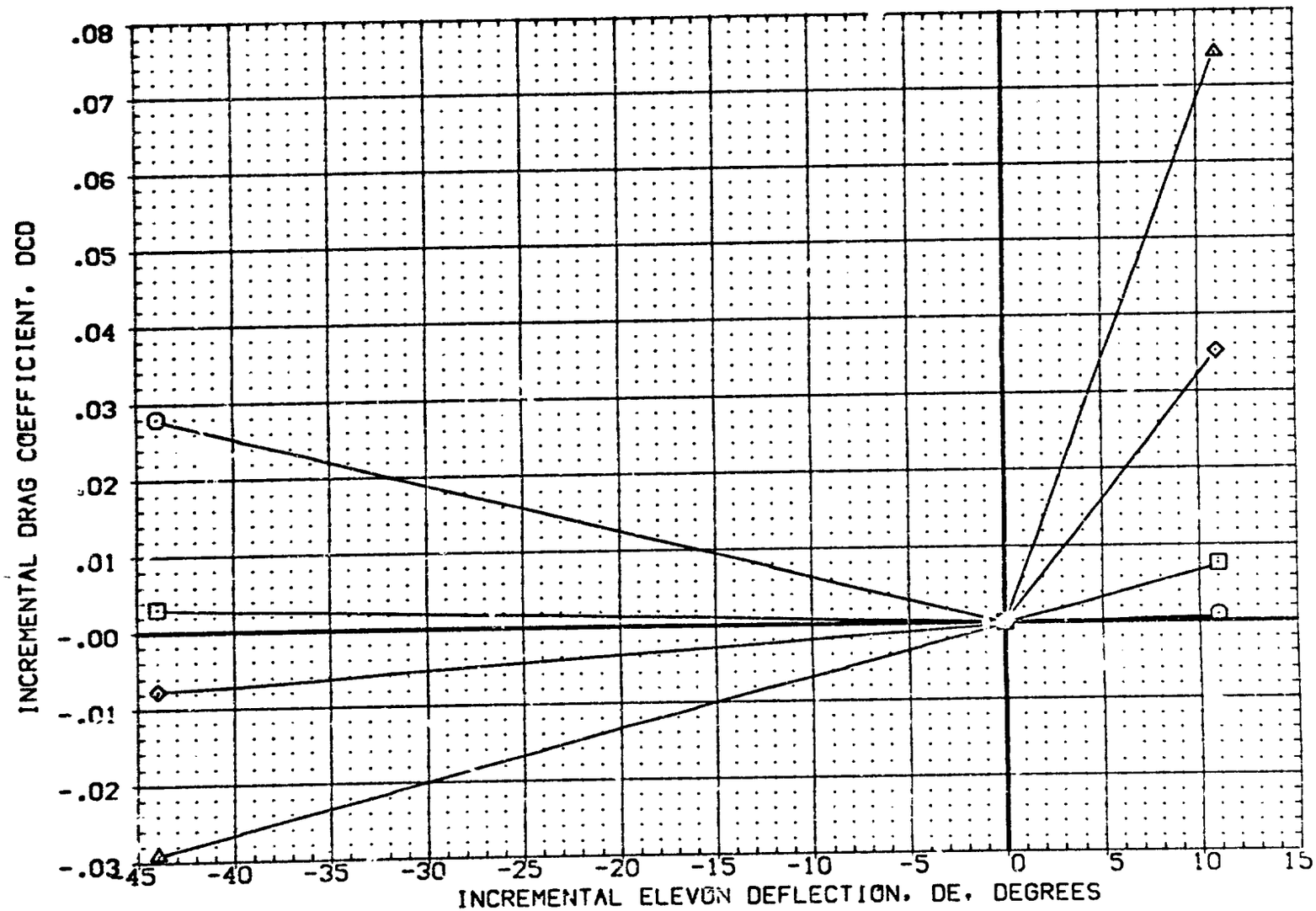


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

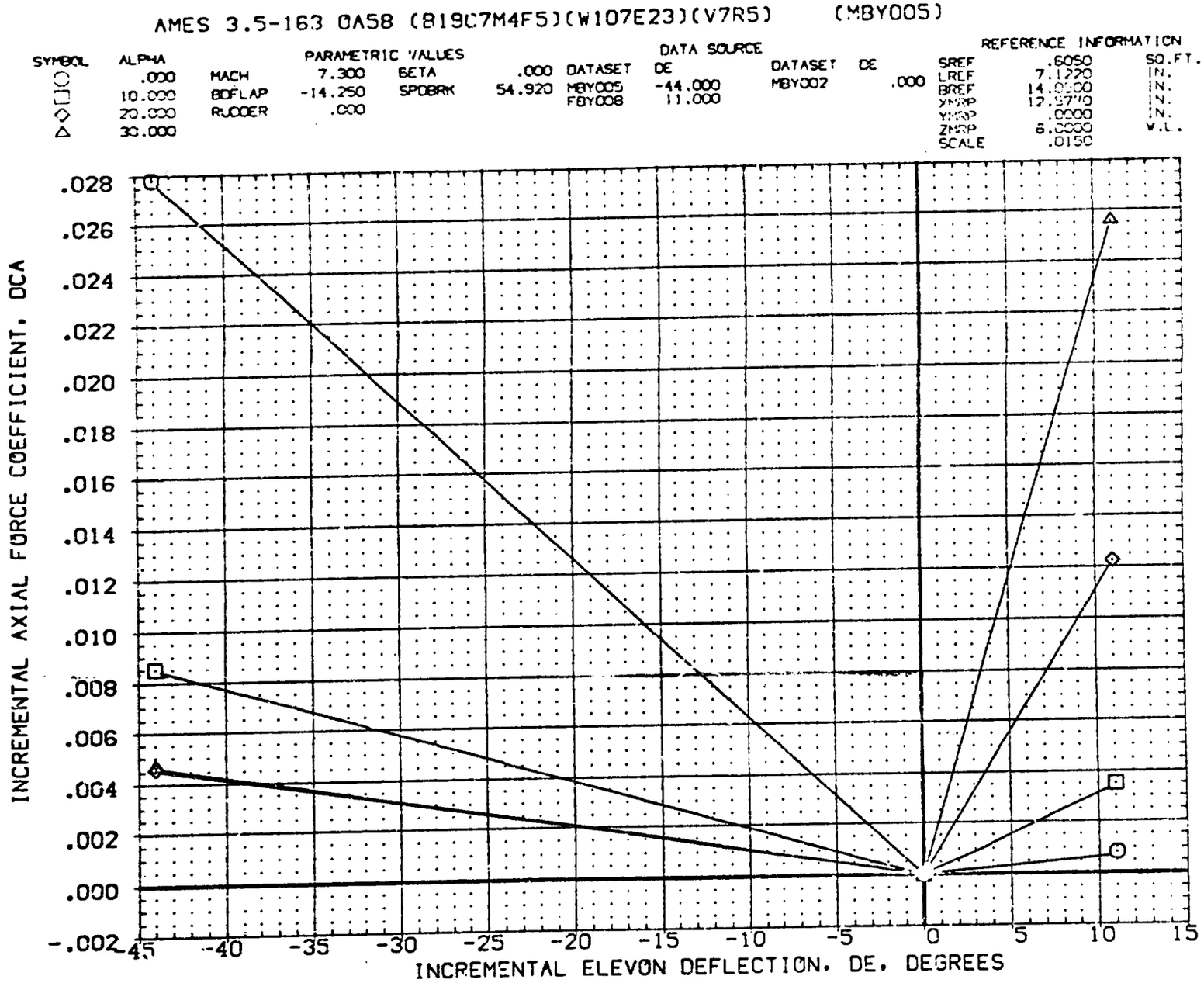


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

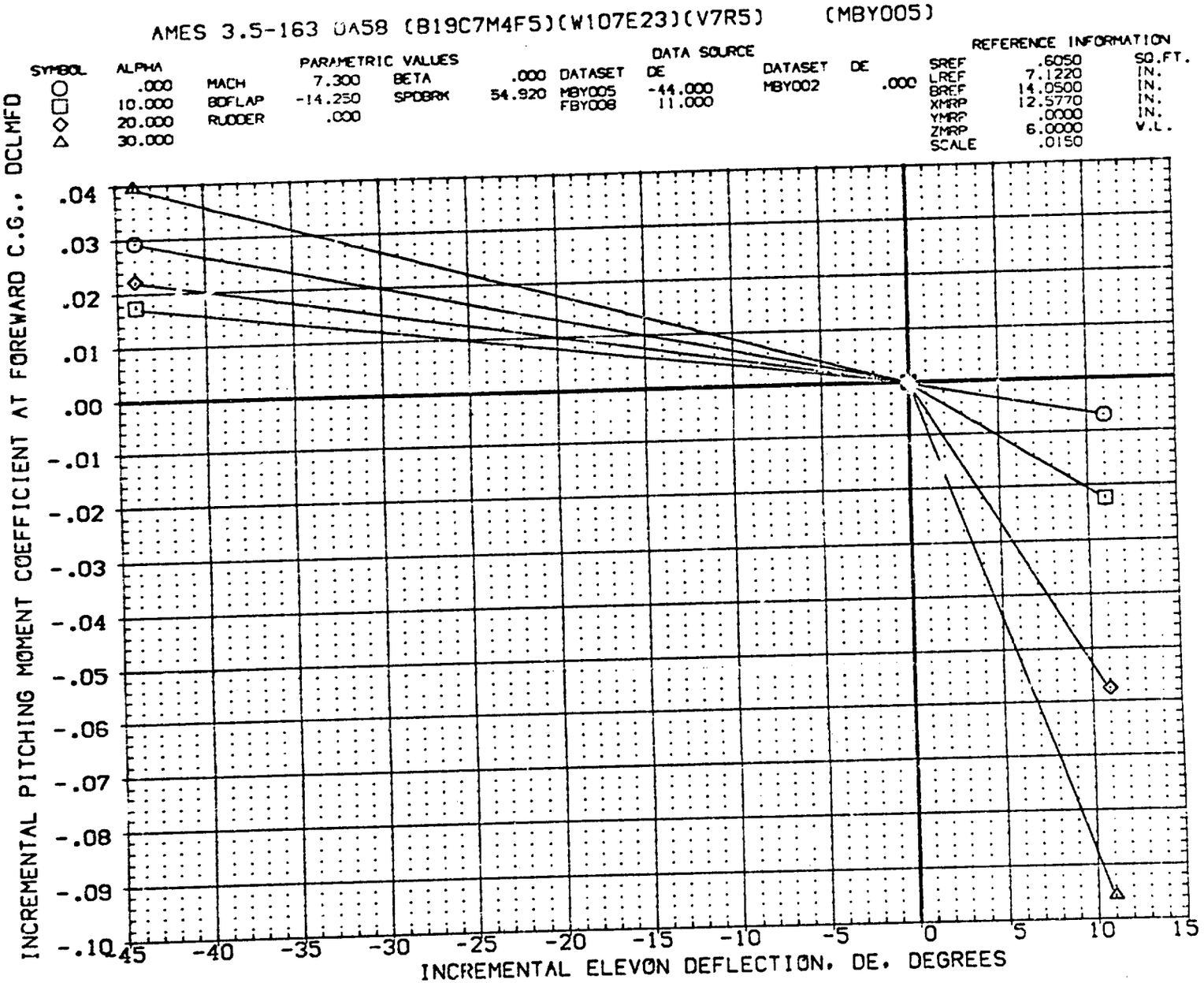


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (MBY005)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	10.000	BOFLAP	-14.250	SPDBRK	54.920	MBY005	-44.000	MBY002	.000	LREF	7.1220	IN.
◇	20.000	RUDDER	.000			FBY008	11.000			BREF	14.0900	IN.
△	30.000									XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

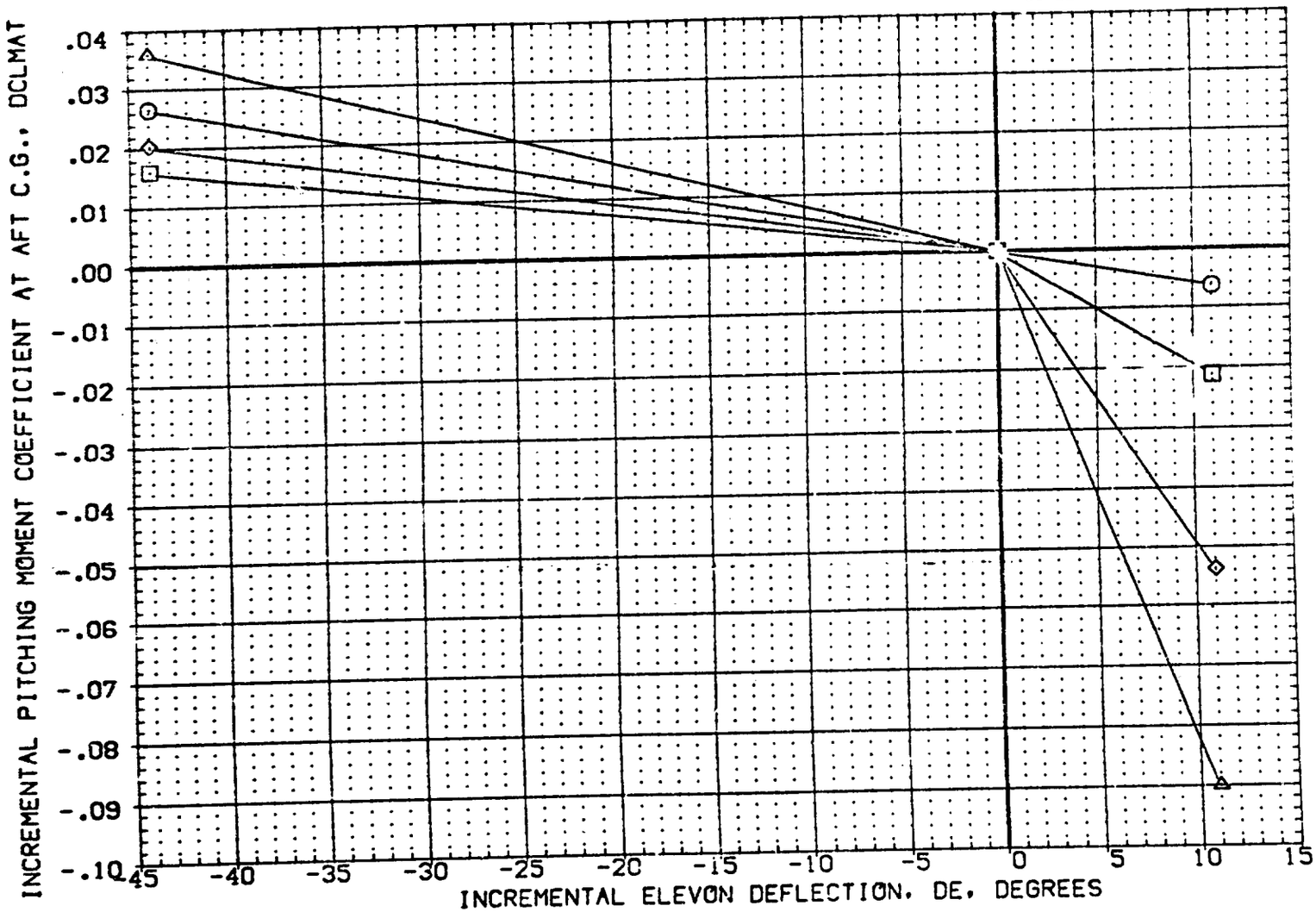


FIG. 5 CONFIGURATION -139B ELEVØN EFFECTIVENESS AT MACH 7.3

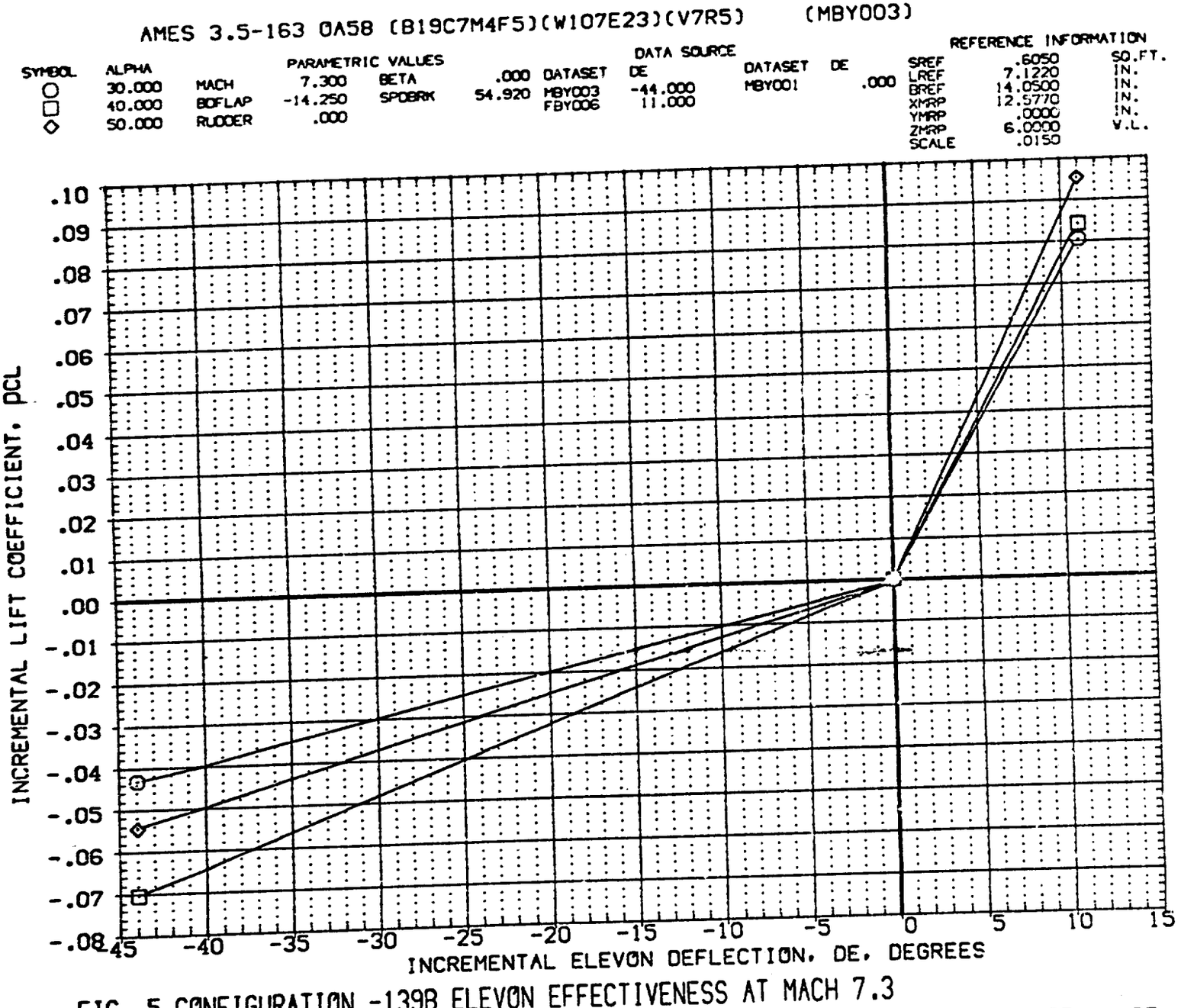


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (MBY003)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE			
○	30.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE
□	40.000	BDFLAP	-14.250	SPDBRK	54.920	MBY003	-44.000	MBY001	.000
◇	50.000	RUDDER	.000			FBY006	11.000		

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

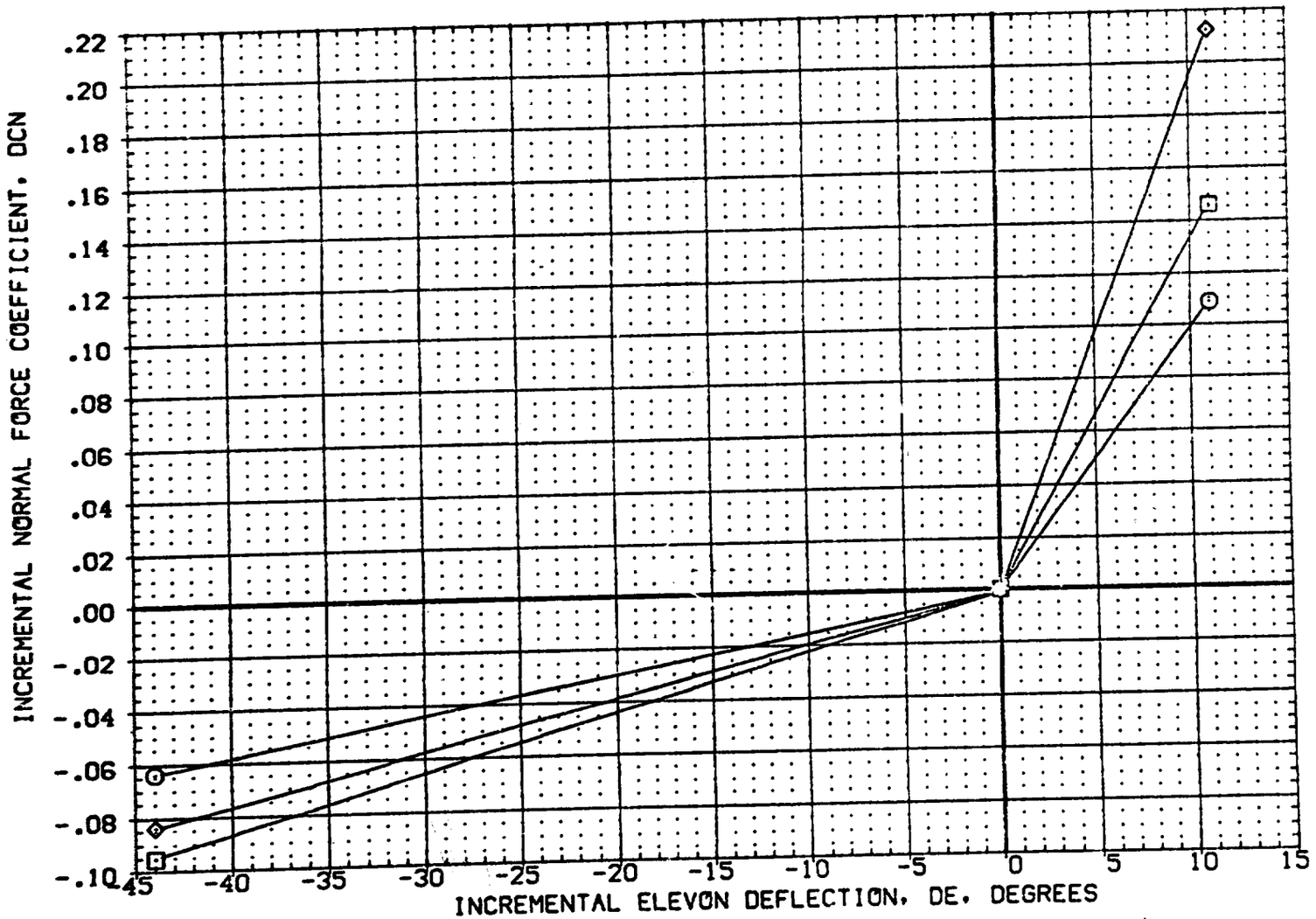


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

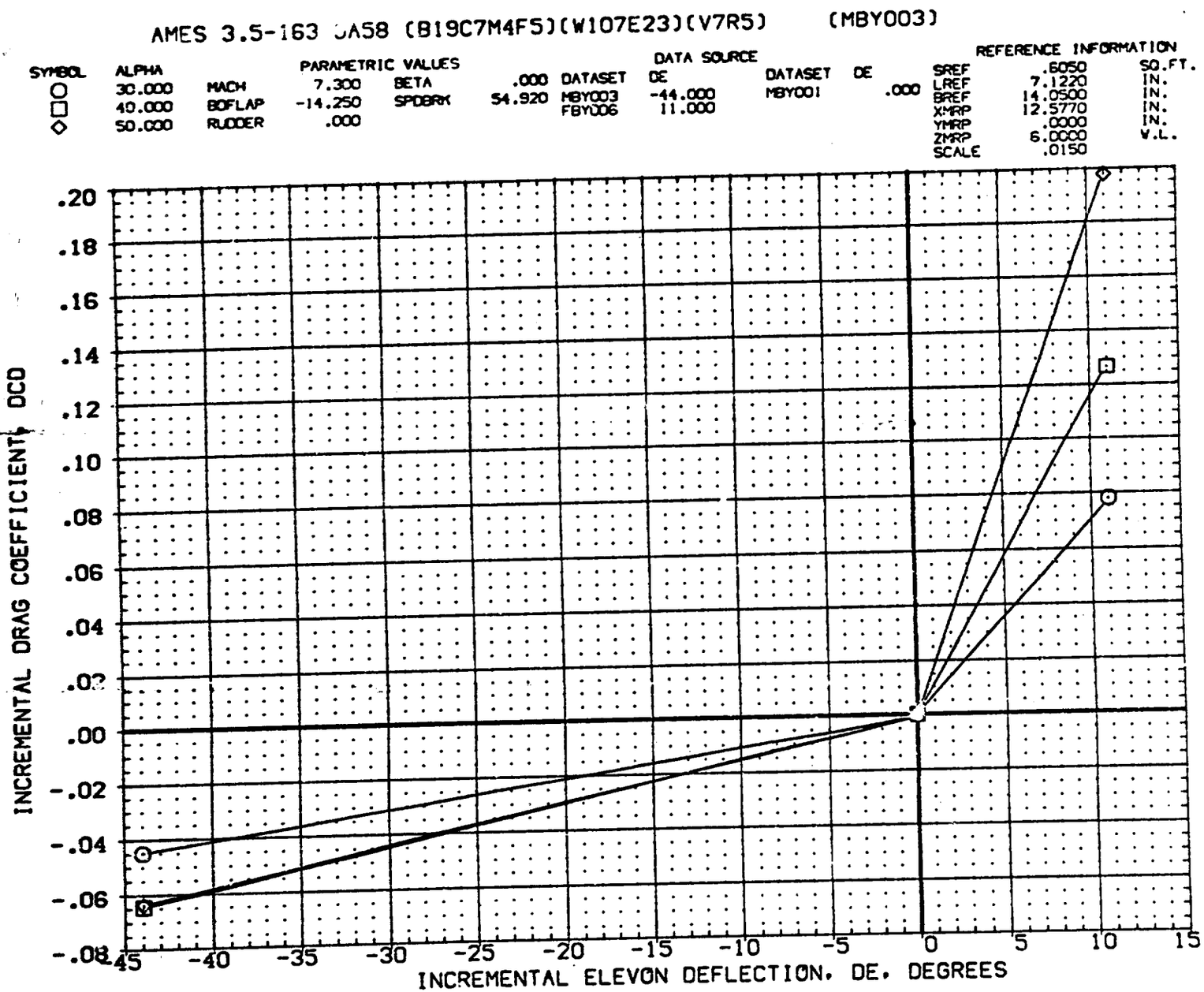


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

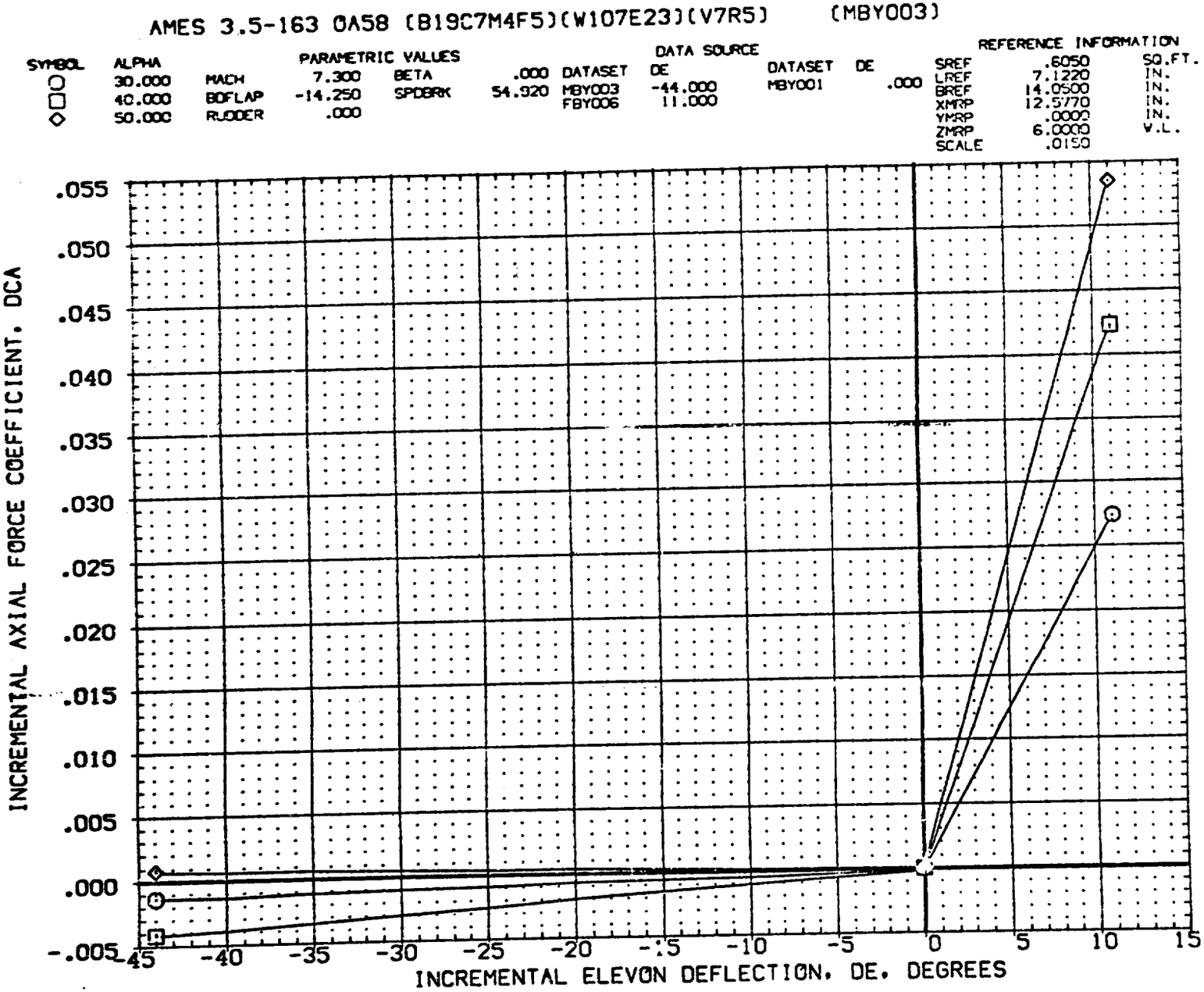


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

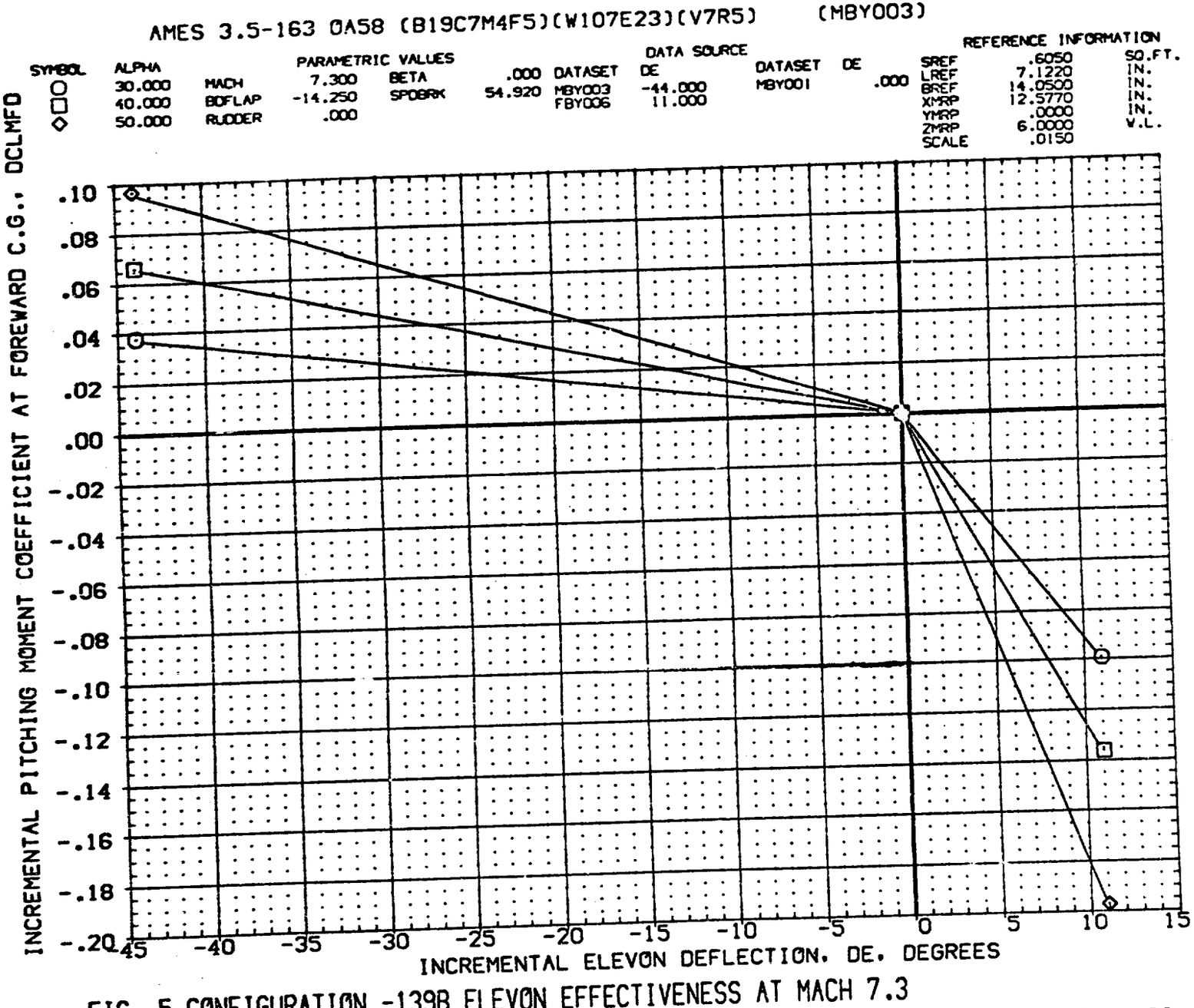


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (MBY003)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	40.000	BDFLAP	-14.250	SPOBRK	54.920	MBY003	-44.000	MBY001	.000	LREF	7.1220	IN.
◇	50.000	RUDDER	.000			FBY006	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

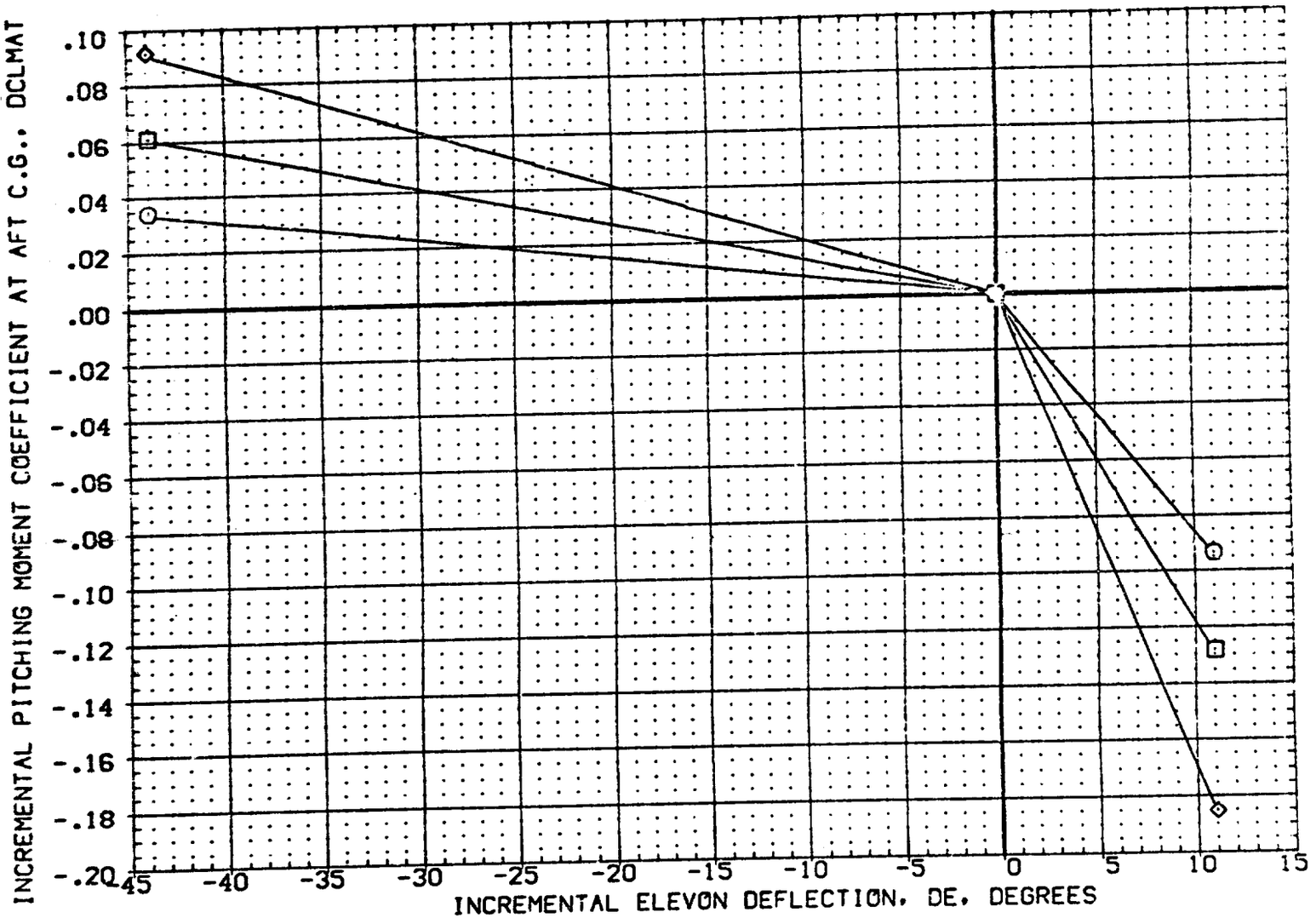


FIG. 5 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 7.3

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY004) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(BBY015) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY007) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

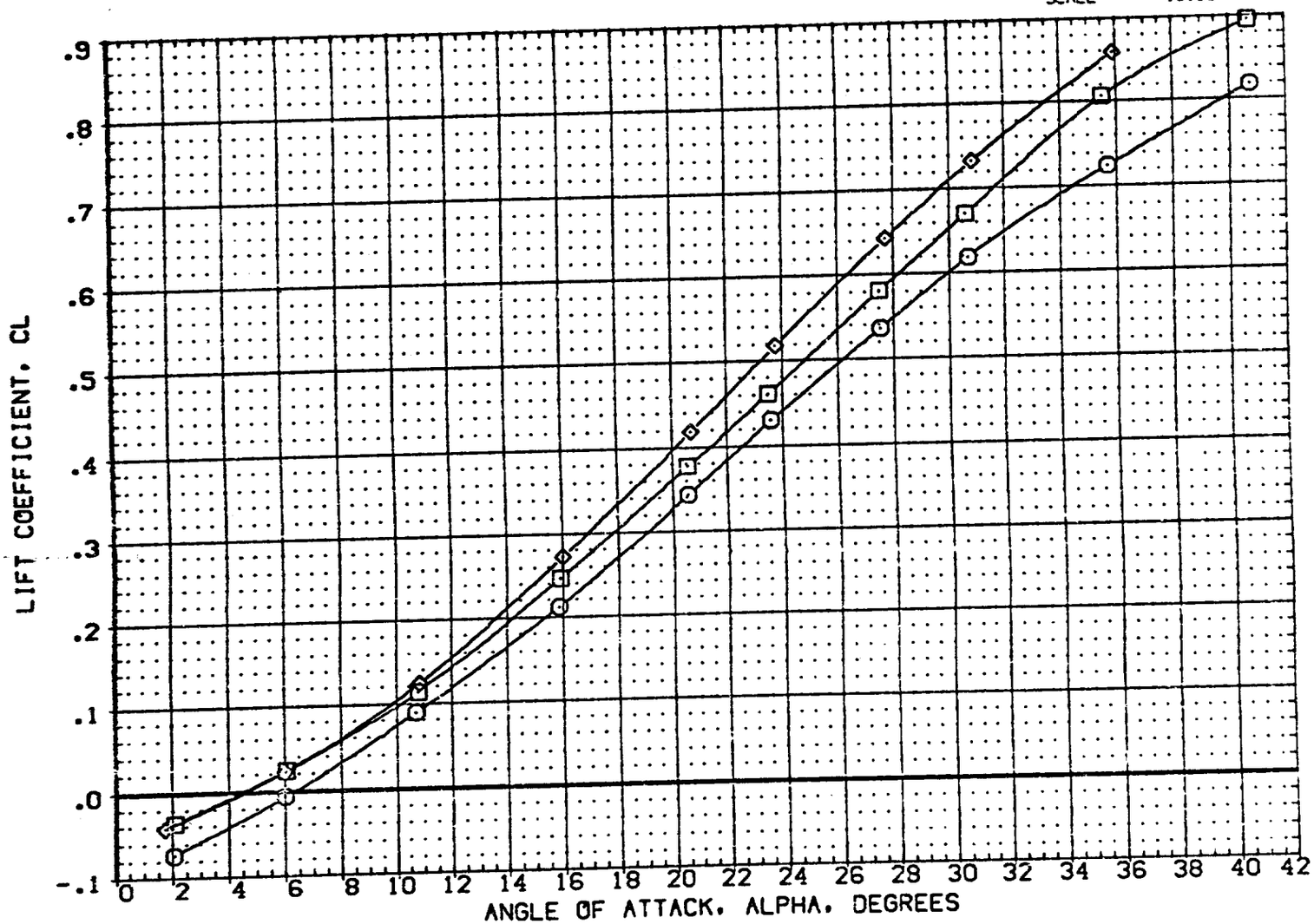


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y004) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(88Y015) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y007) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

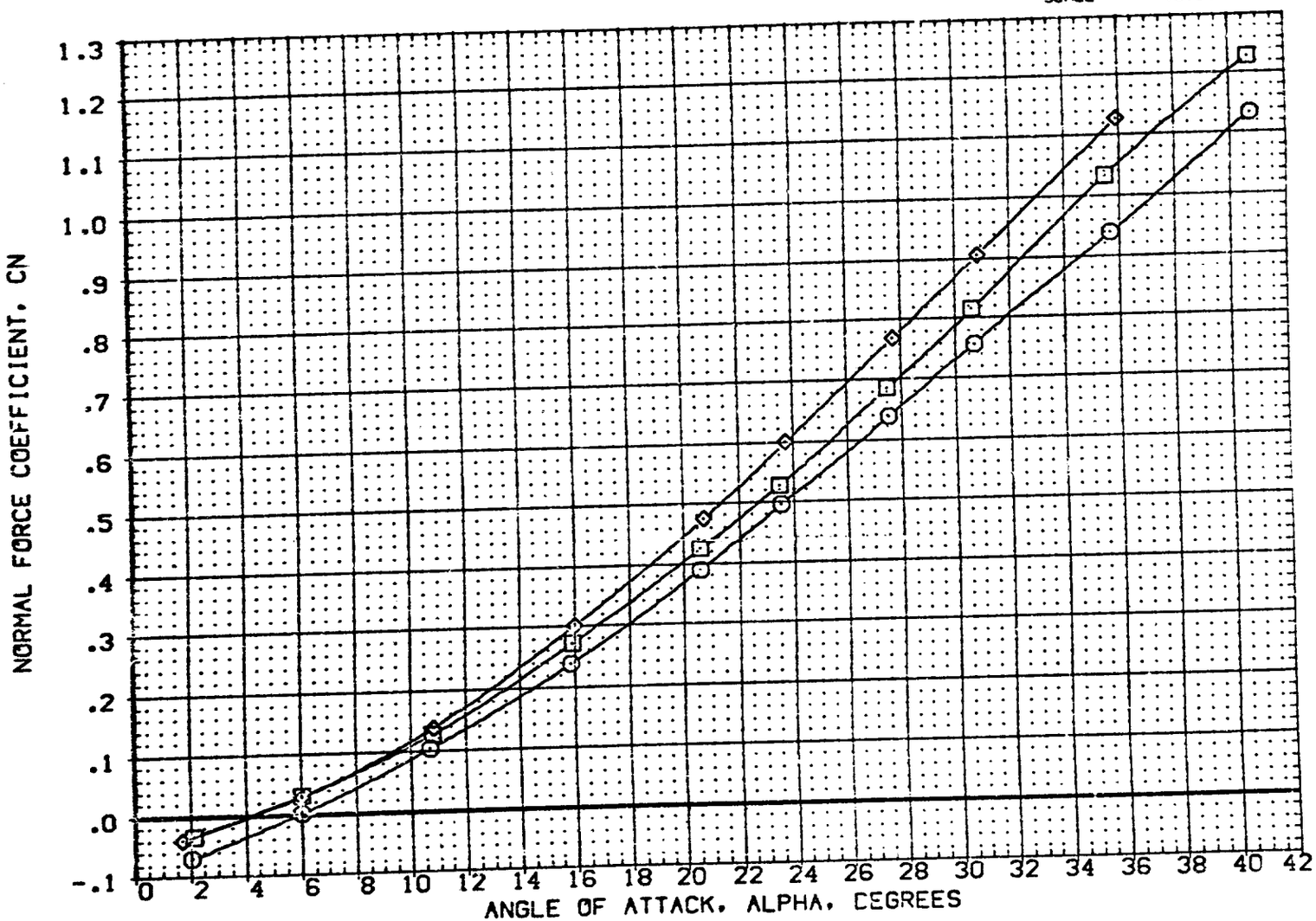


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY004)	○	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(BBY015)	□	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY007)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

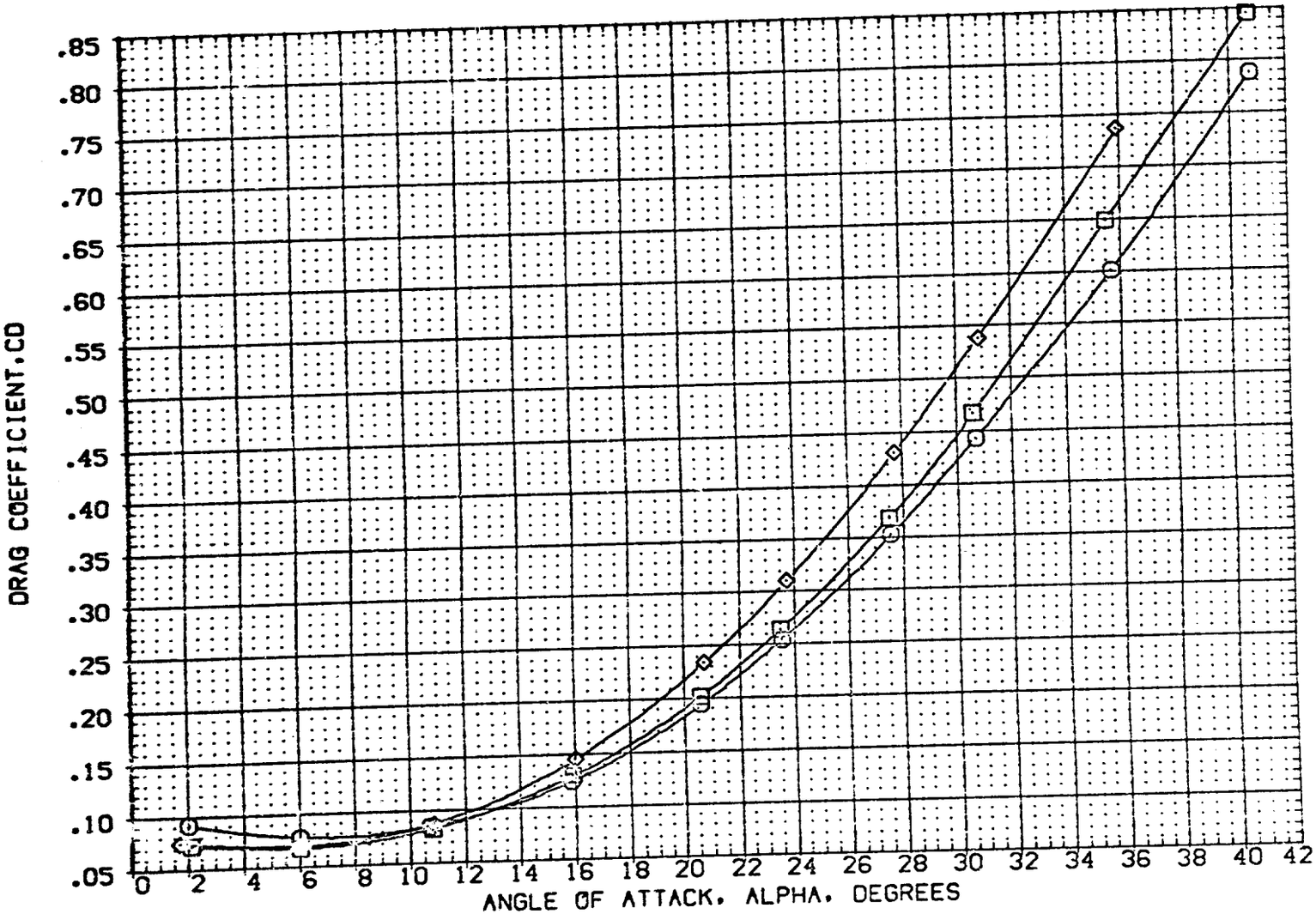


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B3V004)	○	AMES 3.5-163 CASE (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(B3V015)	□	AMES 3.5-163 CASE (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(B3V007)	◇	AMES 3.5-163 CASE (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

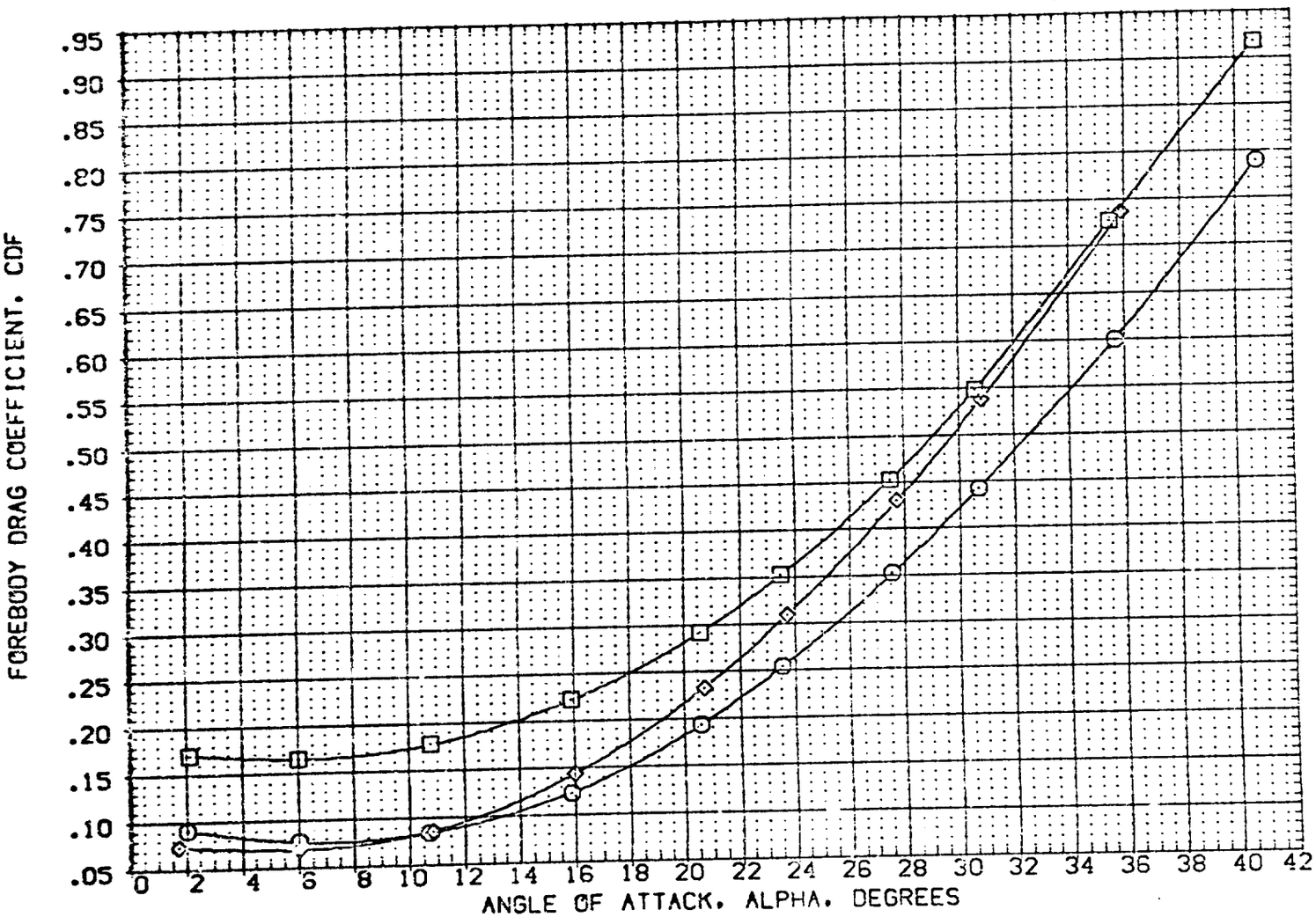


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y004)	○	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(88Y015)	□	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y007)	◇	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

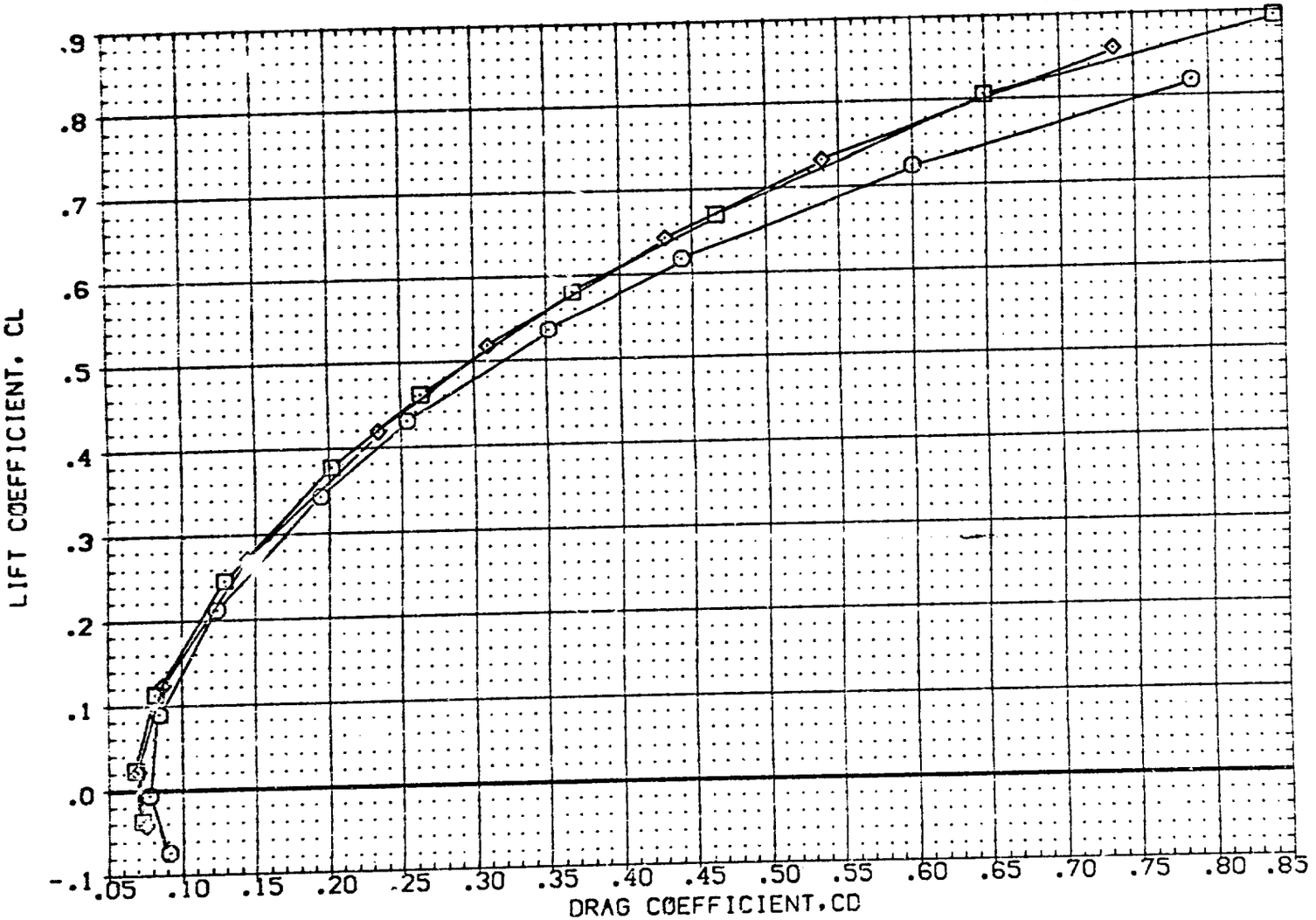


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(89Y004)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(83Y015)	○	AMES 3.5-163 0A53 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y007)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BSLF	14.0500	IN.
XMRP	12.5700	IN.
YMRP	.0000	IN.
ZMRP	6.0200	W.L.
SCALE	.0100	

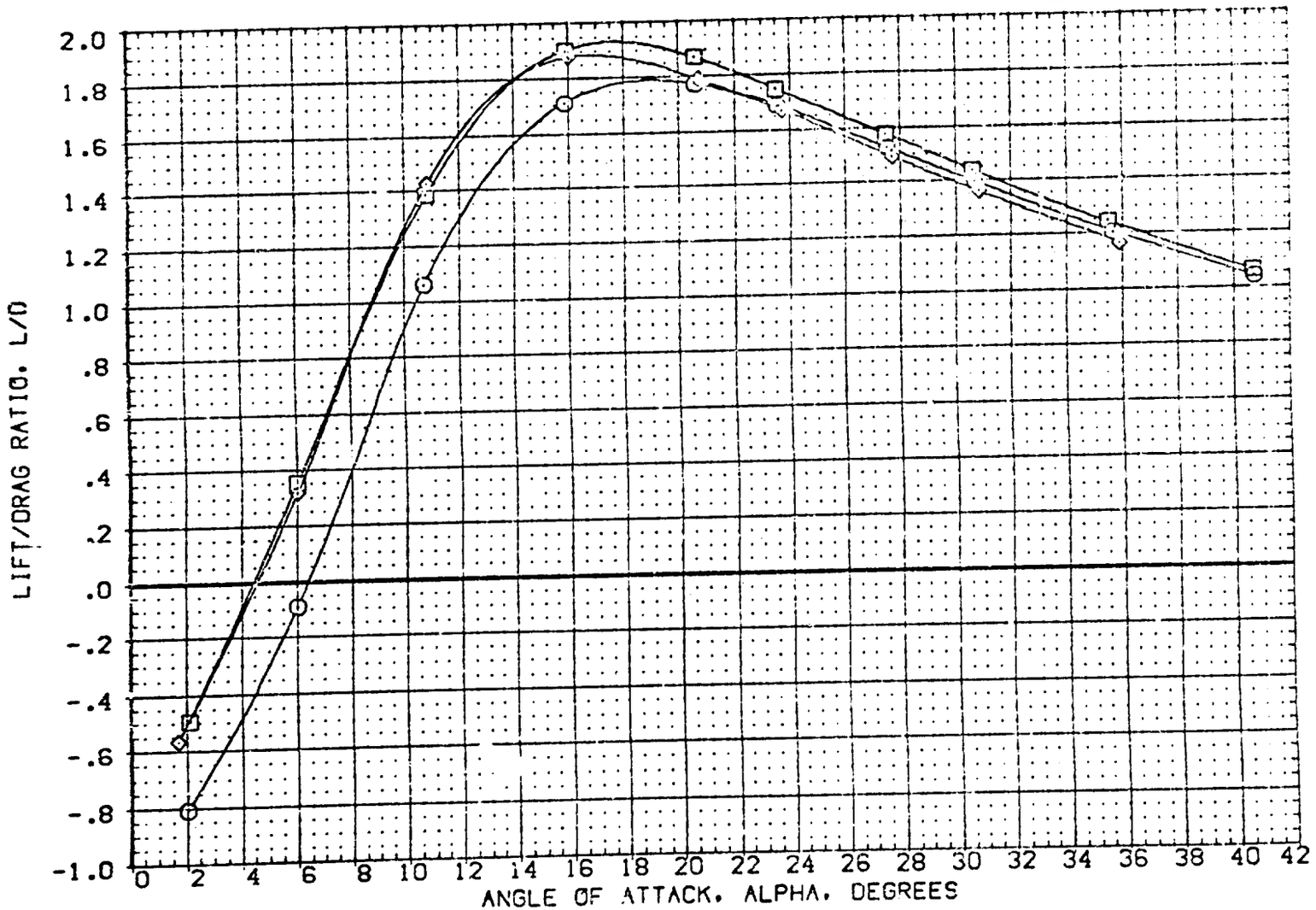


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY004)	AMES 3.5-163 CAS8 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(BBY015)	AMES 3.5-163 CAS8 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY007)	AMES 3.5-163 CAS8 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

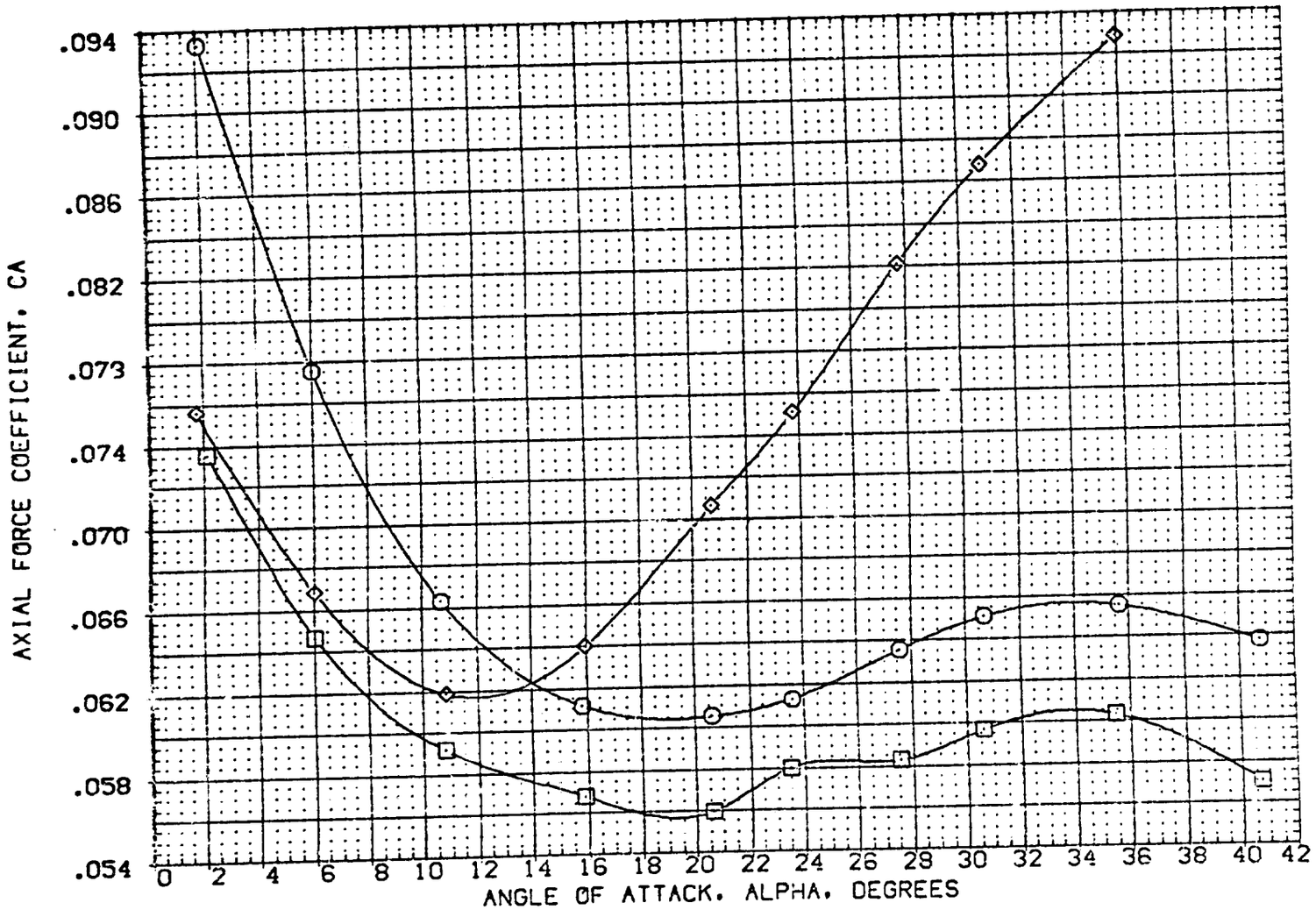


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(88Y004)	□	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(88YC15)	□	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y007)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	M.L.
SCALE	.0150	

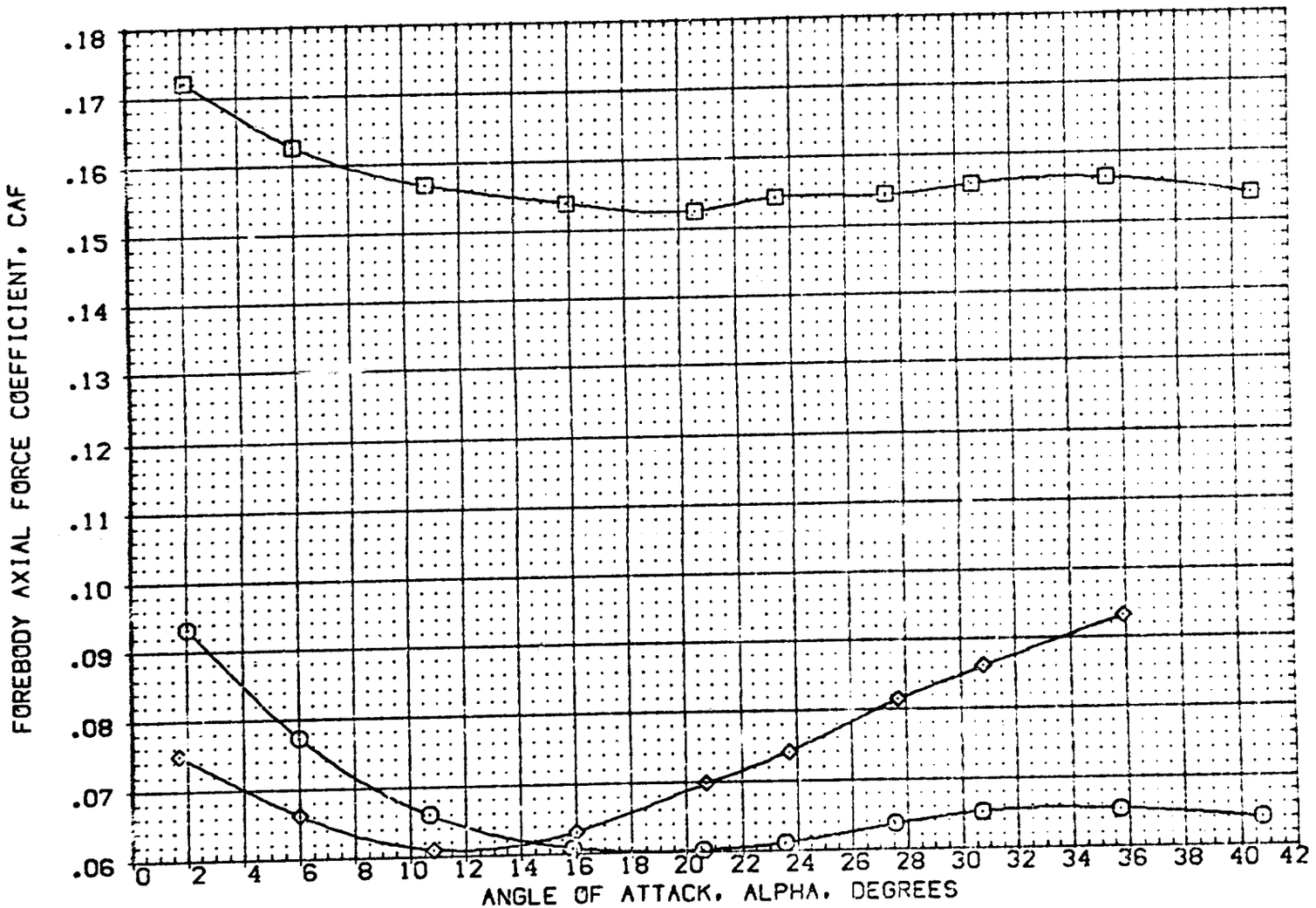


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8Y004)	○	AMES 3.5-163 CAS8 (B19C7M4FS)(V107E23)(V7RS)	.000	-44.000	-14.250	54.920
(B8Y015)	□	AMES 3.5-163 CAS8 (B19C7M4FS)(V107E23)(V7RS)	.000	.000	-14.250	54.920
(B8Y007)	◇	AMES 3.5-163 CAS8 (B19C7M4FS)(V107E23)(V7RS)	.000	11.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

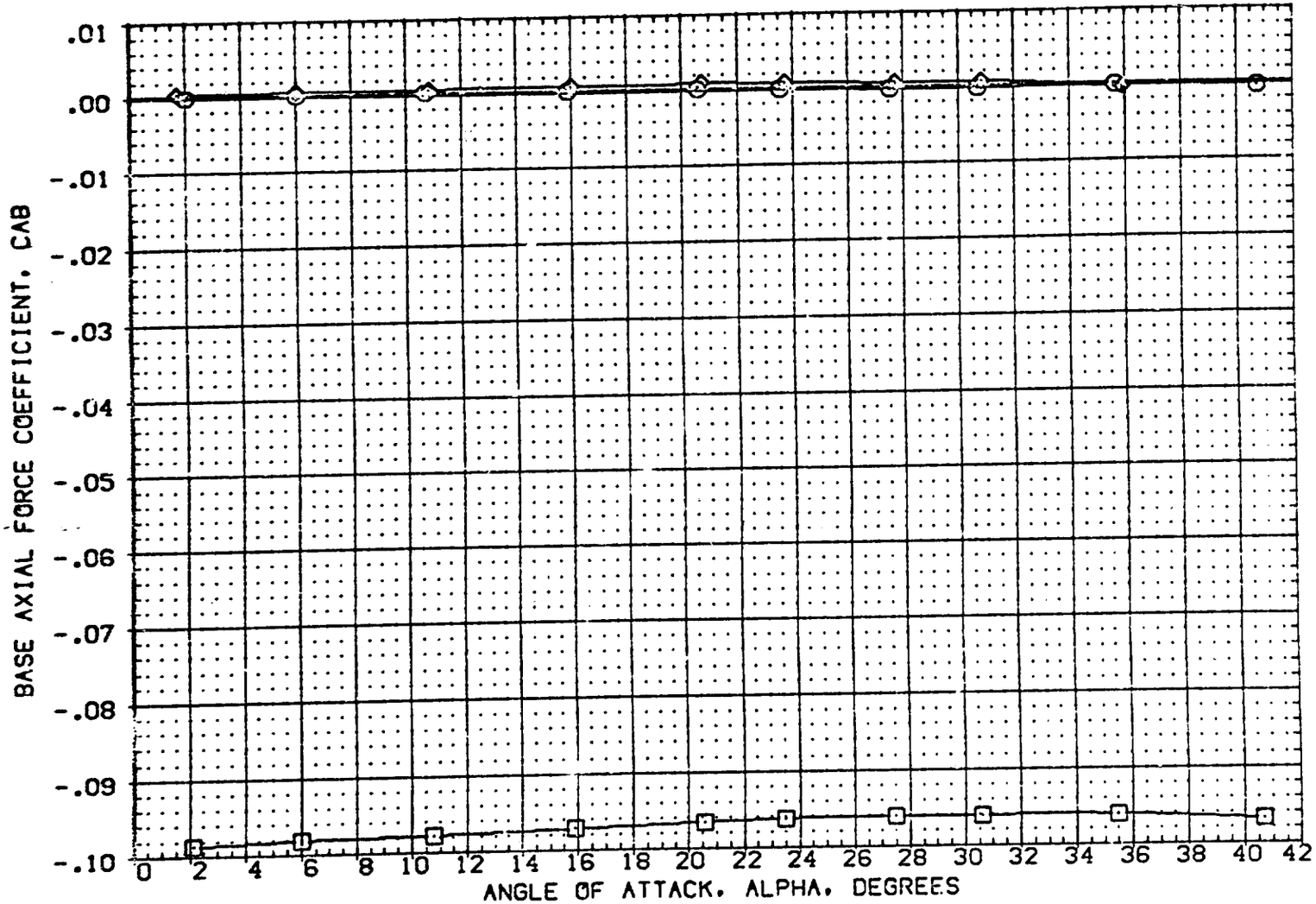


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y004)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(88Y015)	◁□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y007)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

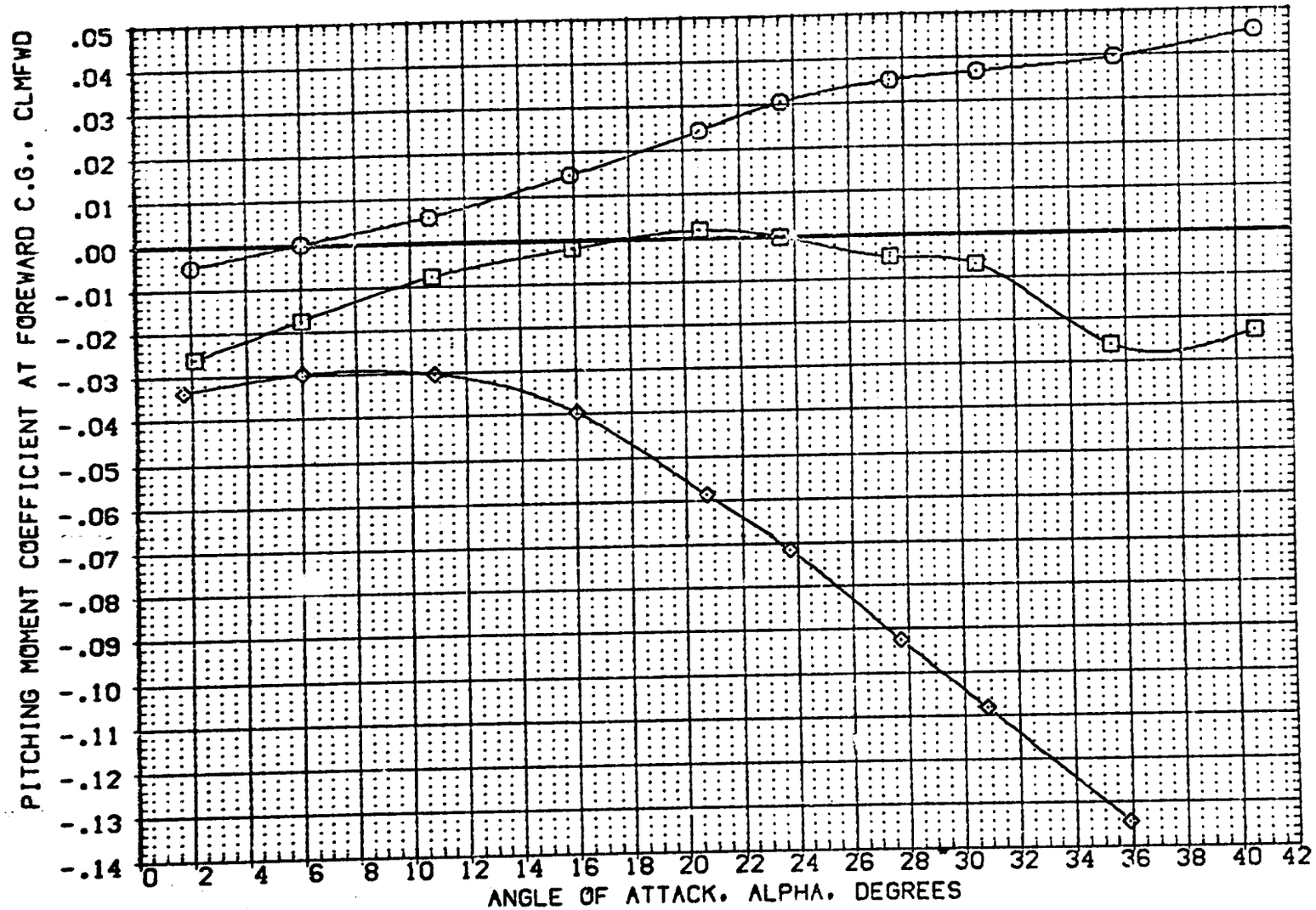


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY004)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(BBY015)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY007)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	5.0000	W.L.
SCALE	.0150	

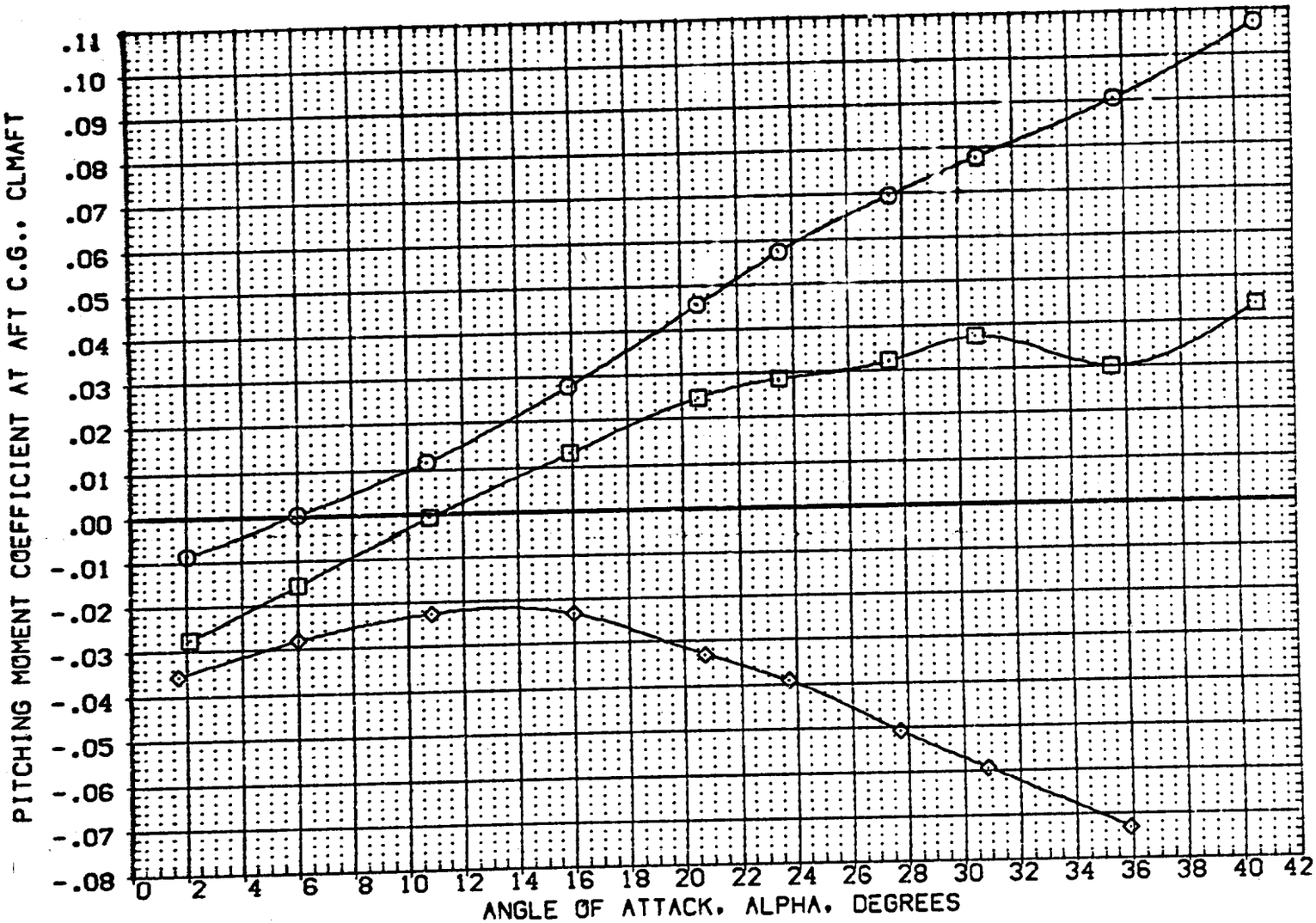


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8Y004) ○	AMES 3.5-163 CA58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(B8Y015) □	AMES 3.5-163 CA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(B8Y007) ◇	AMES 3.5-163 CA58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

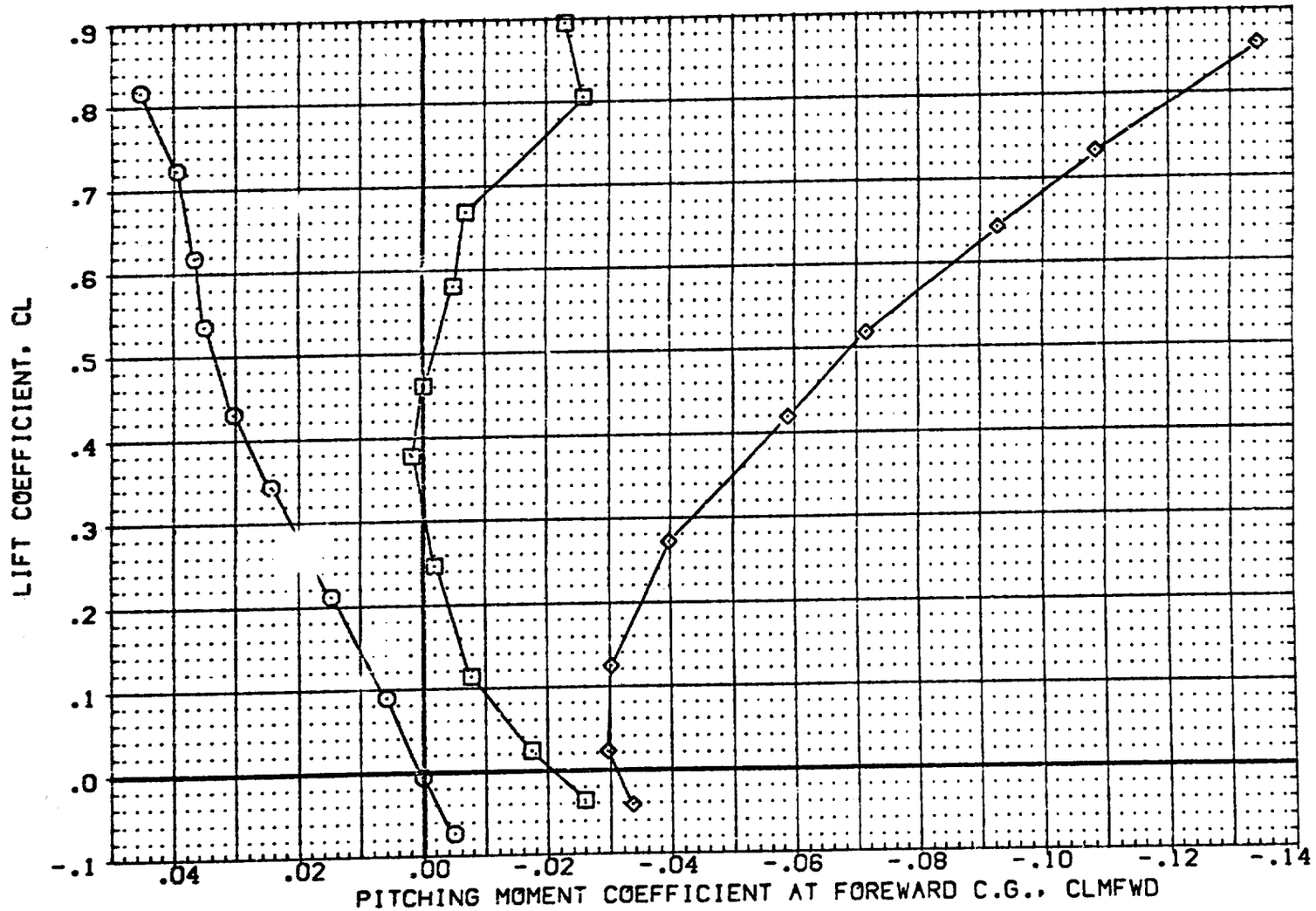


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(BBY004)	○	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(BBYC15)	□	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY007)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

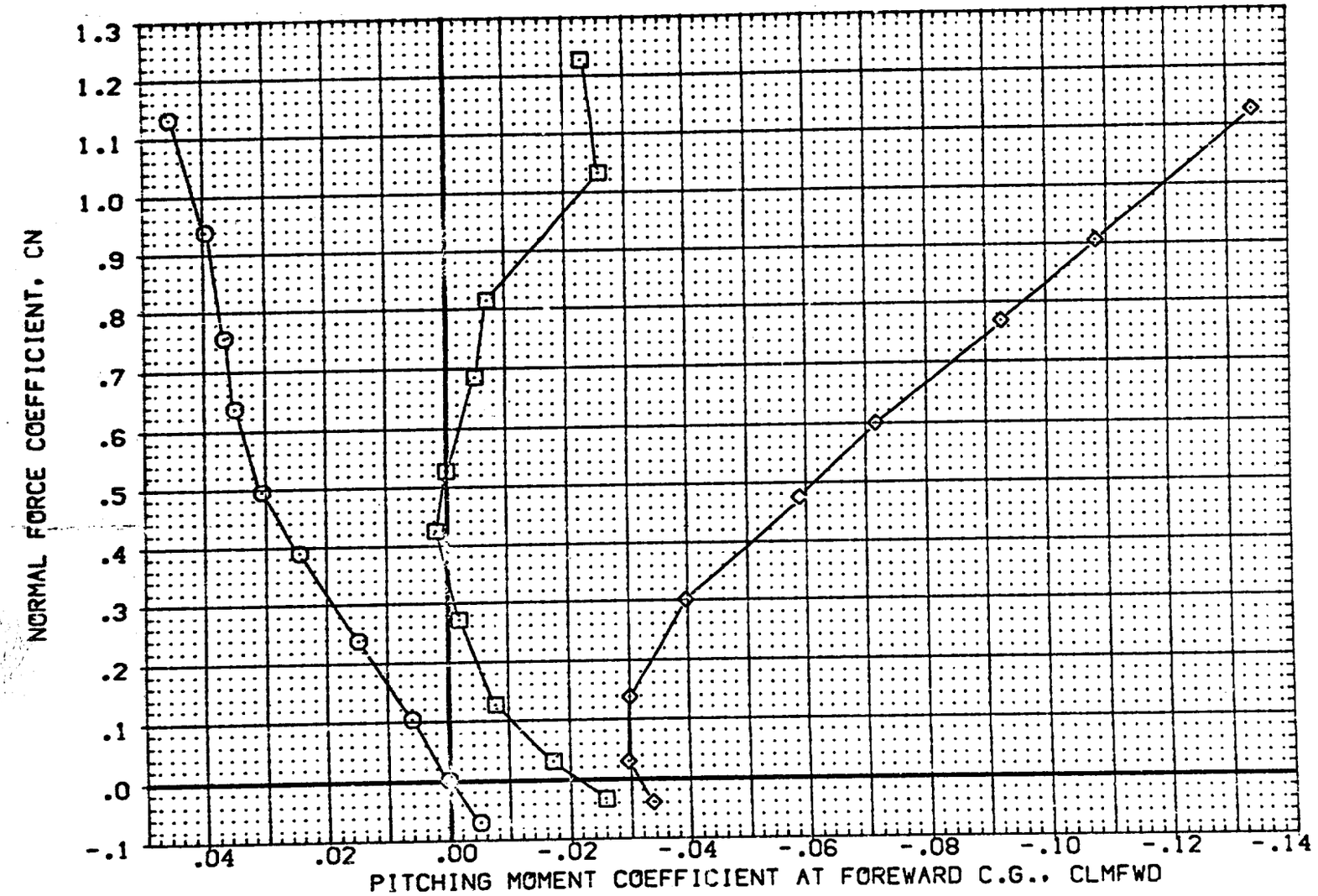


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(RBY004)	AMES 3.5-163 CA58 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(RBY015)	AMES 3.5-163 CA58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(RBY007)	AMES 3.5-163 CA58 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

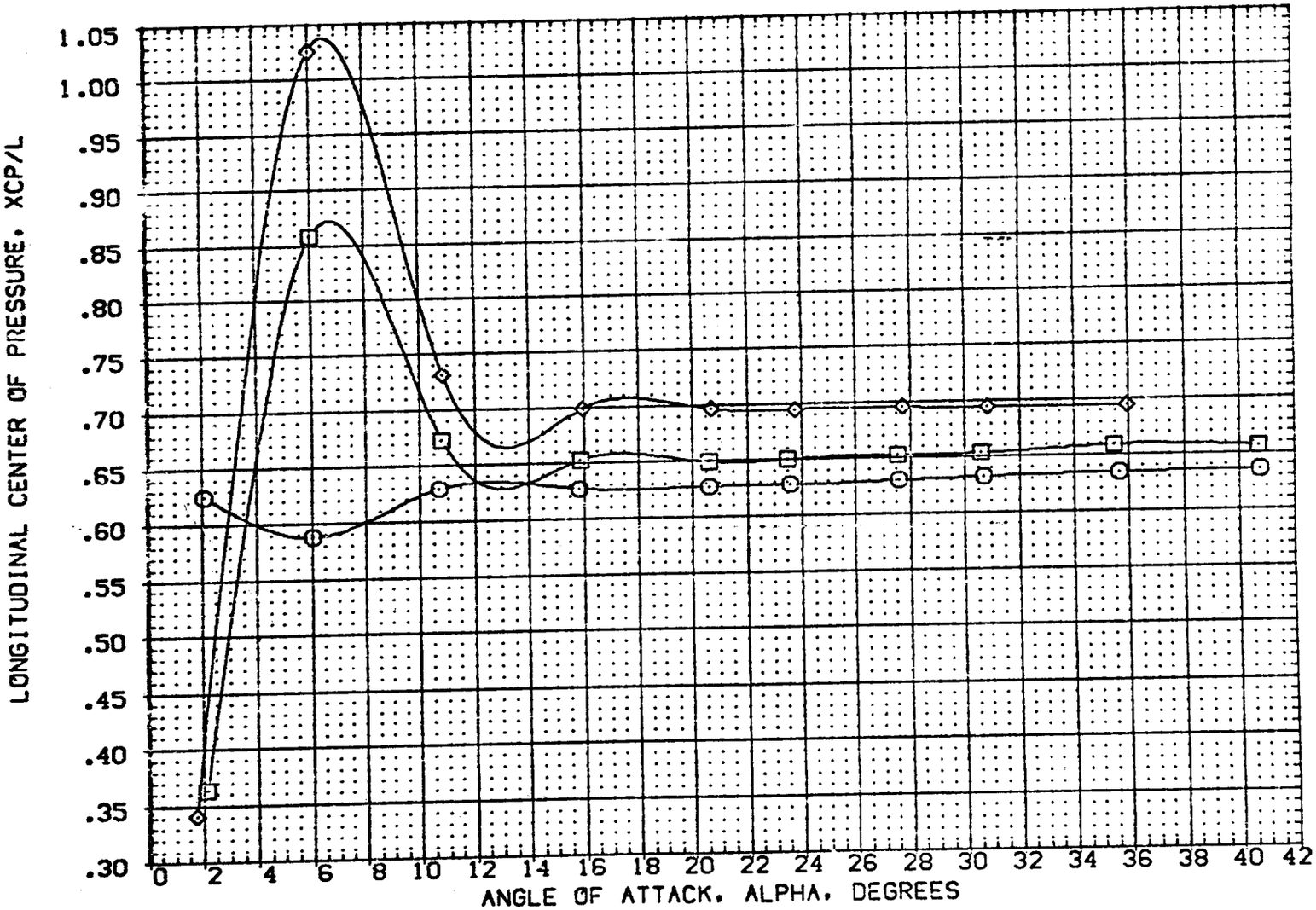


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY004)	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(EBY007)	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

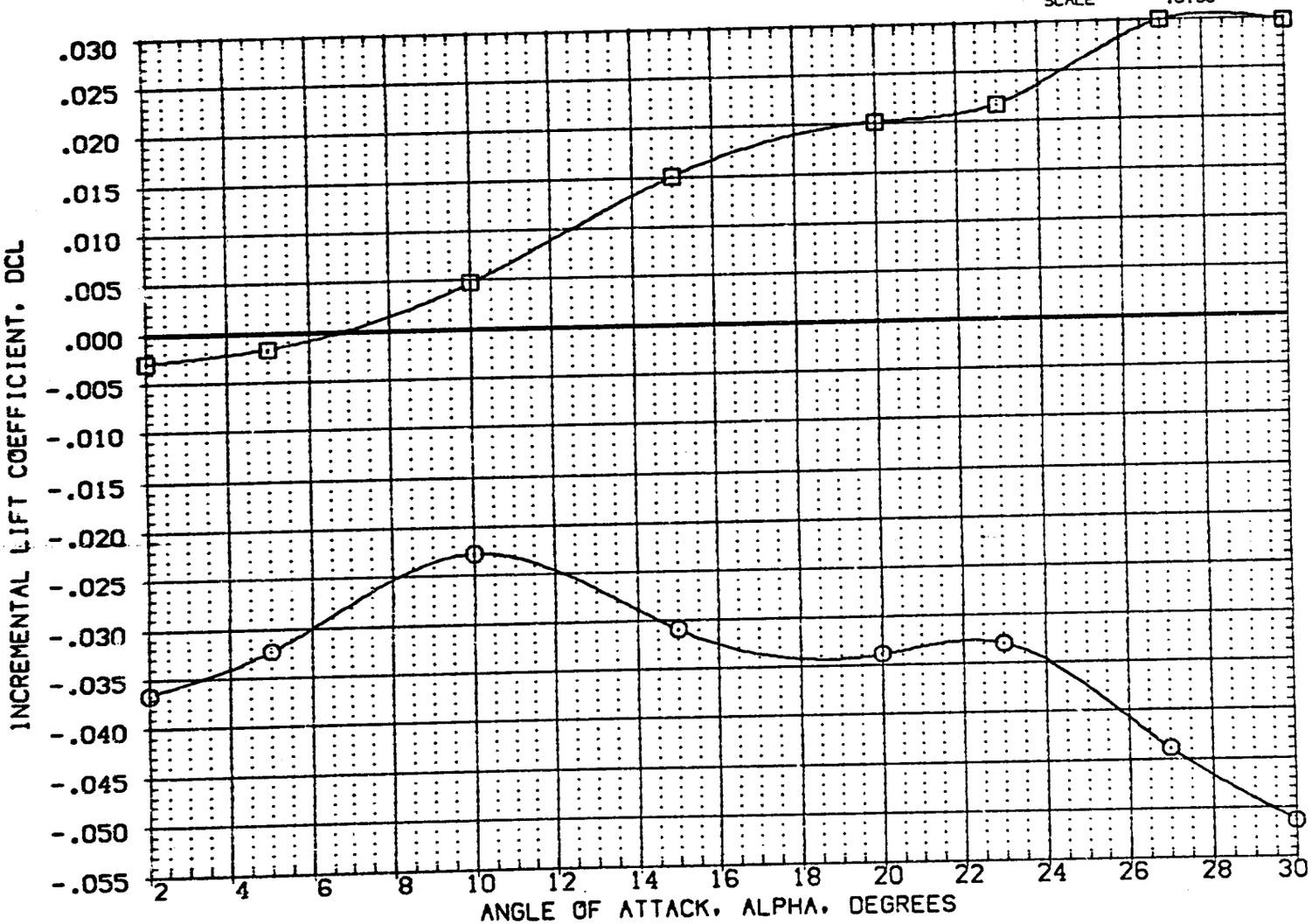


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(E6Y004)	AMES 3.5-163 CAS8 (B19C7M4F5)(W107E23)(V7R5)	.000	-44.000	-14.250	54.920
(E8Y007)	AMES 3.5-163 CAS8 (B19C7M4F5)(W107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

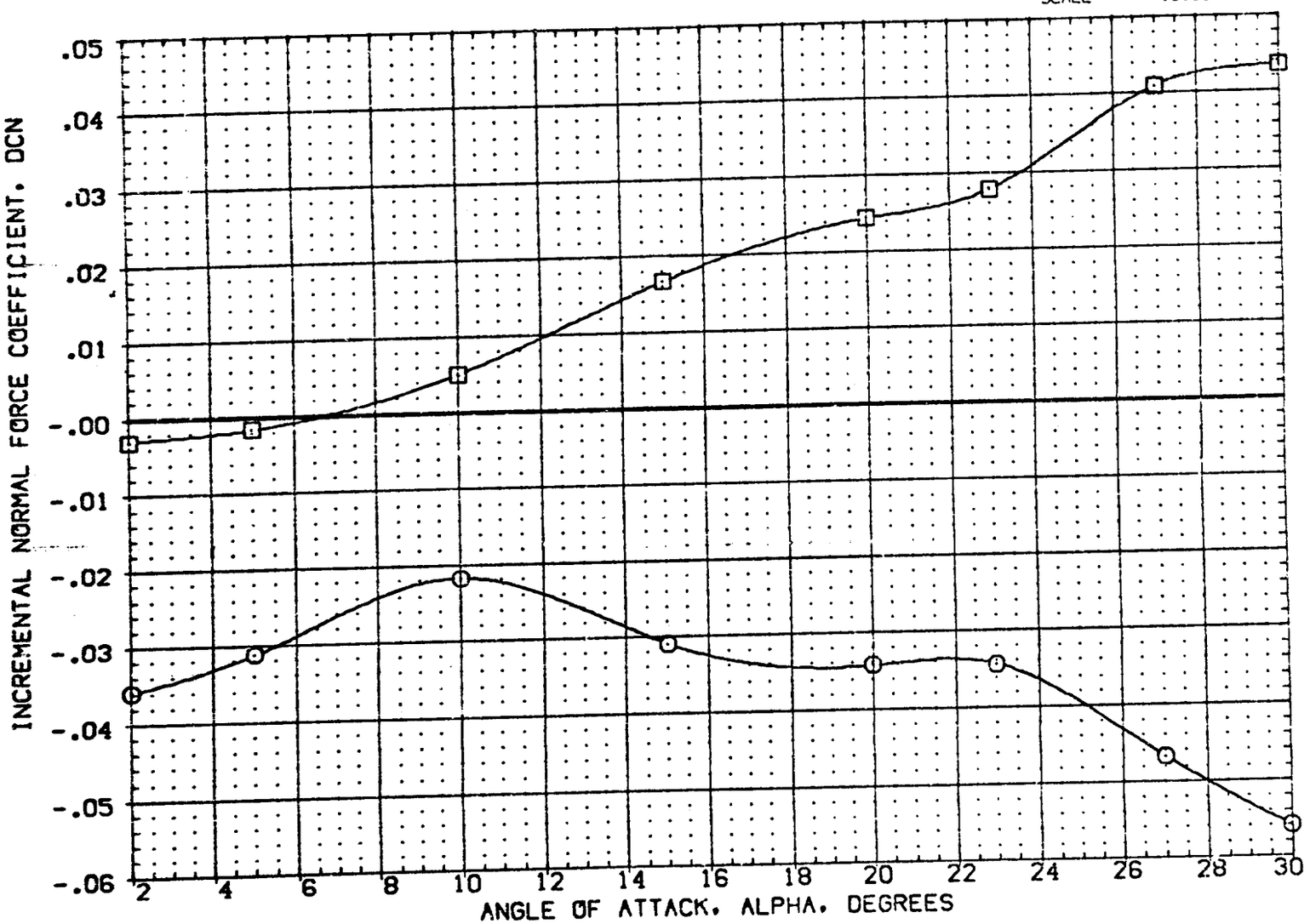


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY004)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(EBY007)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

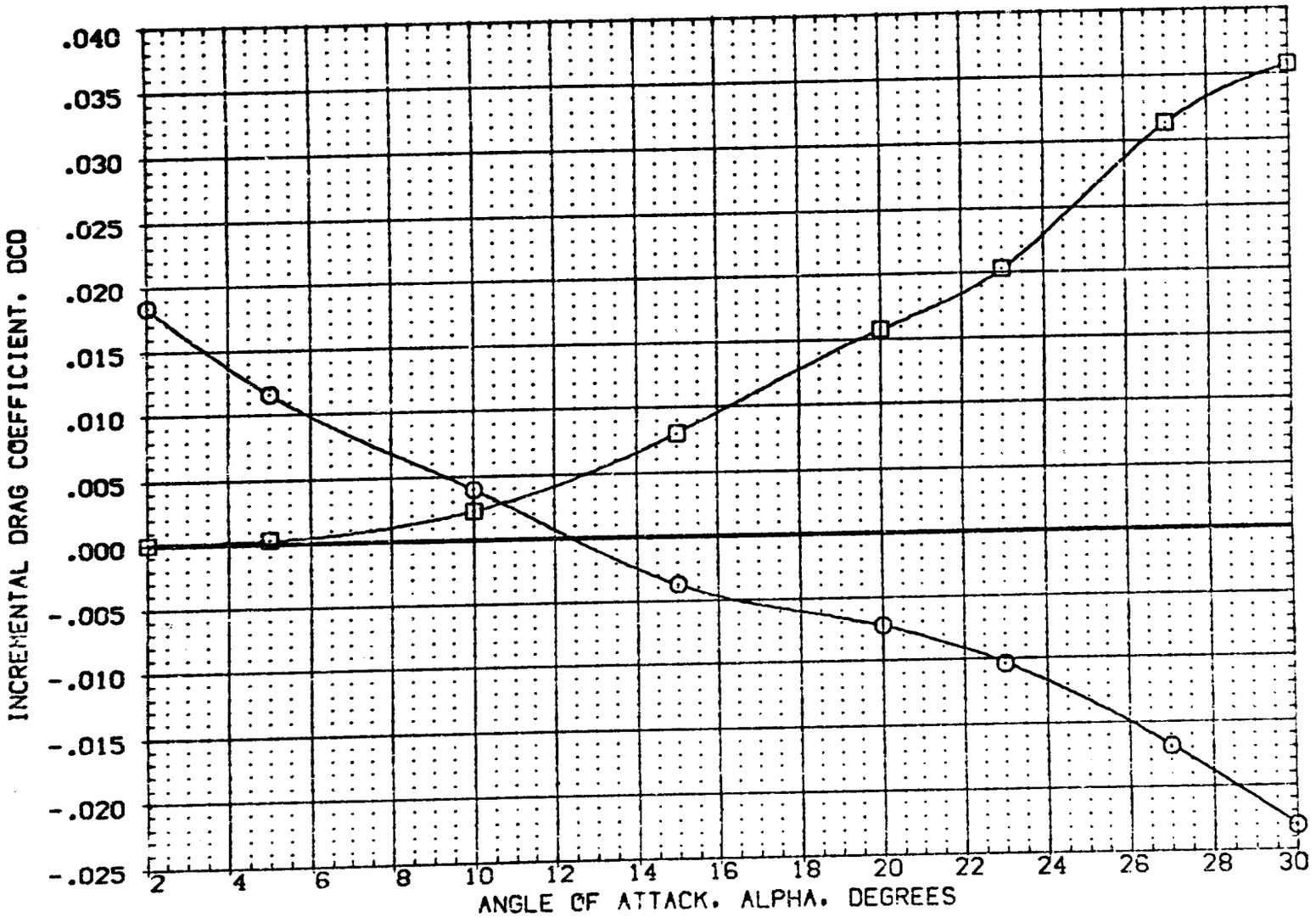


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPDBRK
(EBY004)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(EBY007)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

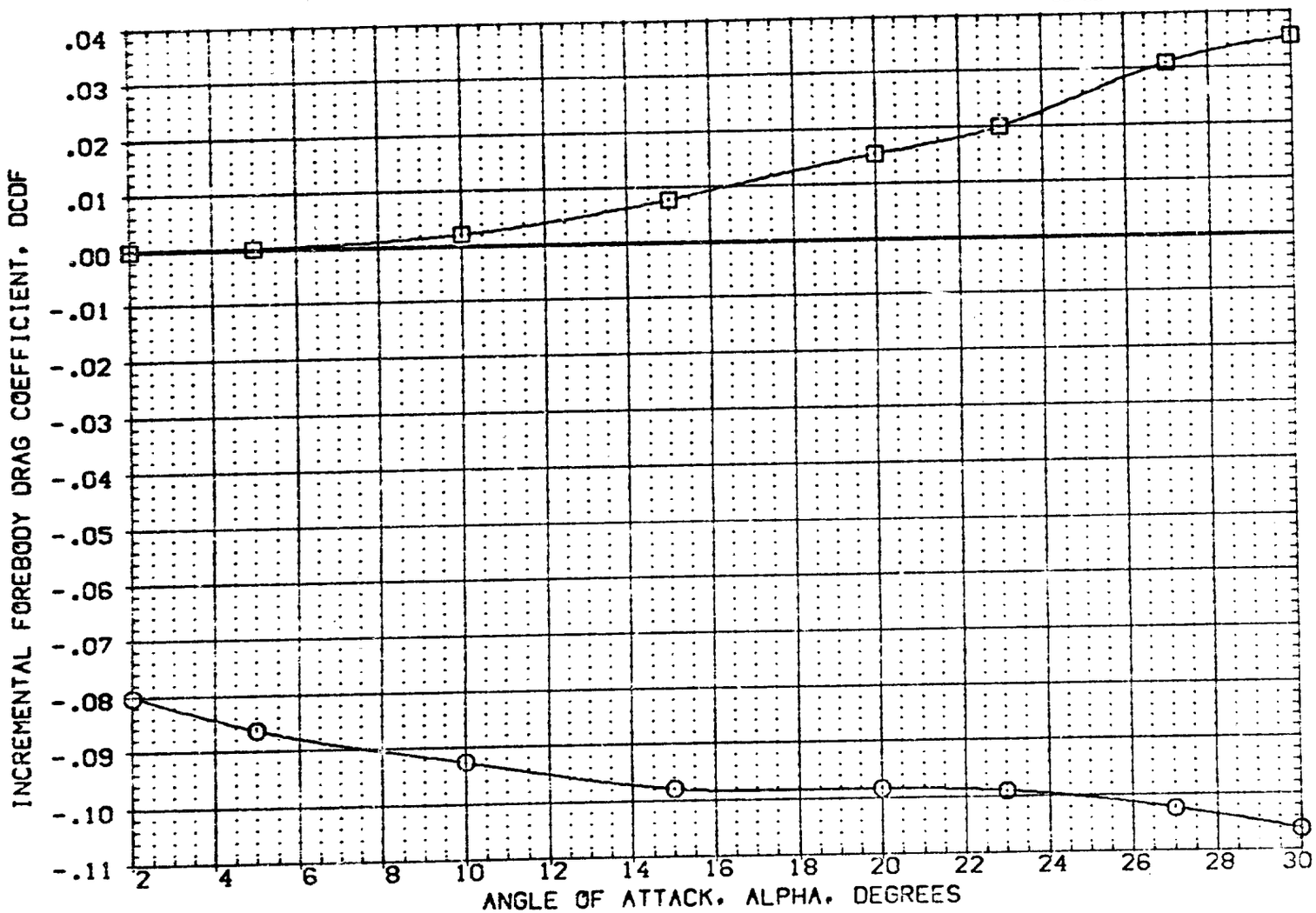


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DF	BOFLAP	SPDBRK
[EBY004]	AMES 3.5-163 0A58 (B19C7M4F5)(V107E2)](V7R5)	.000	-44.000	-14.250	54.920
[EBY007]	AMES 3.5-163 0A58 (B19C7M4F5)(V107E3)](V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

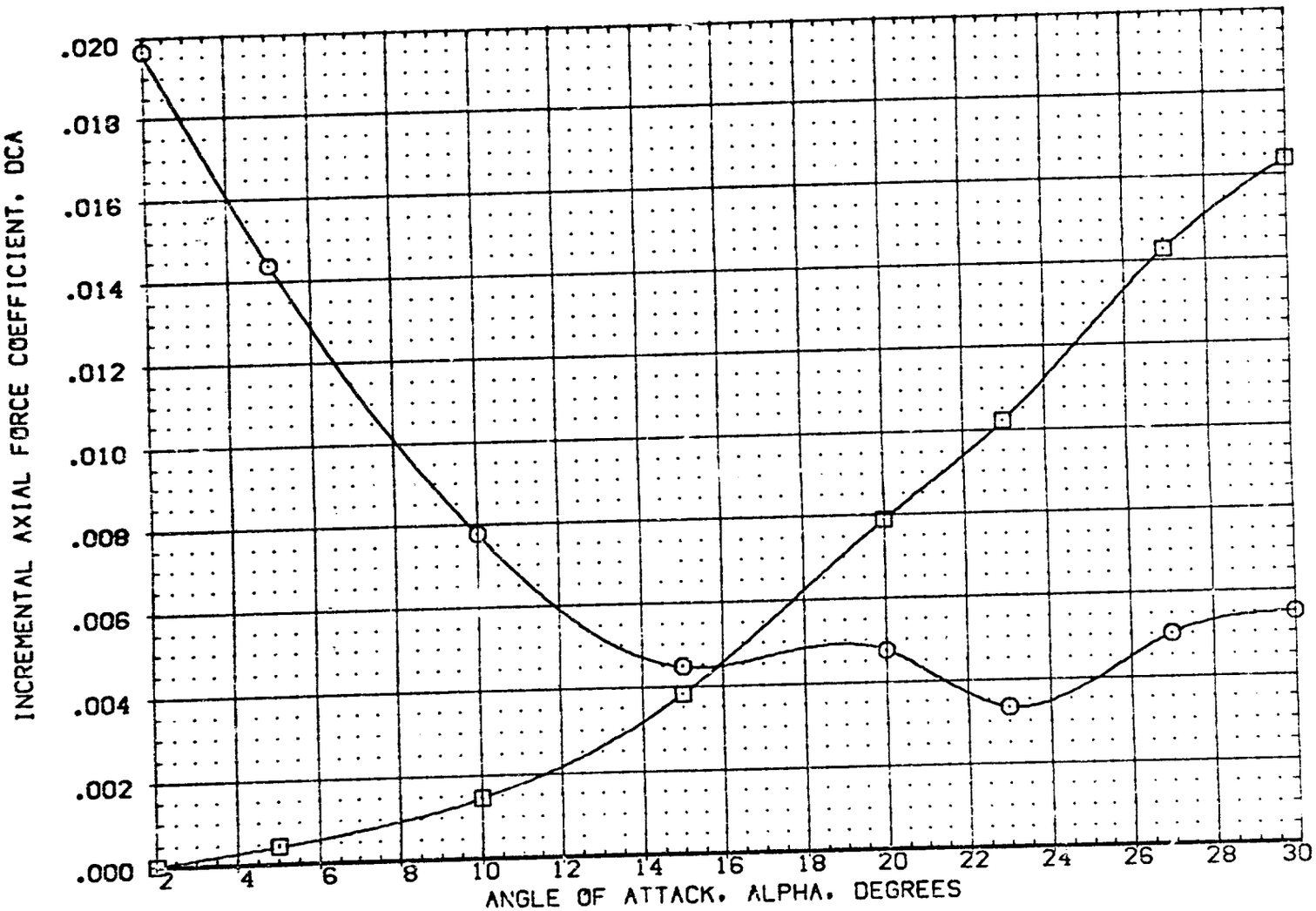


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

[A]MACH = 10.30

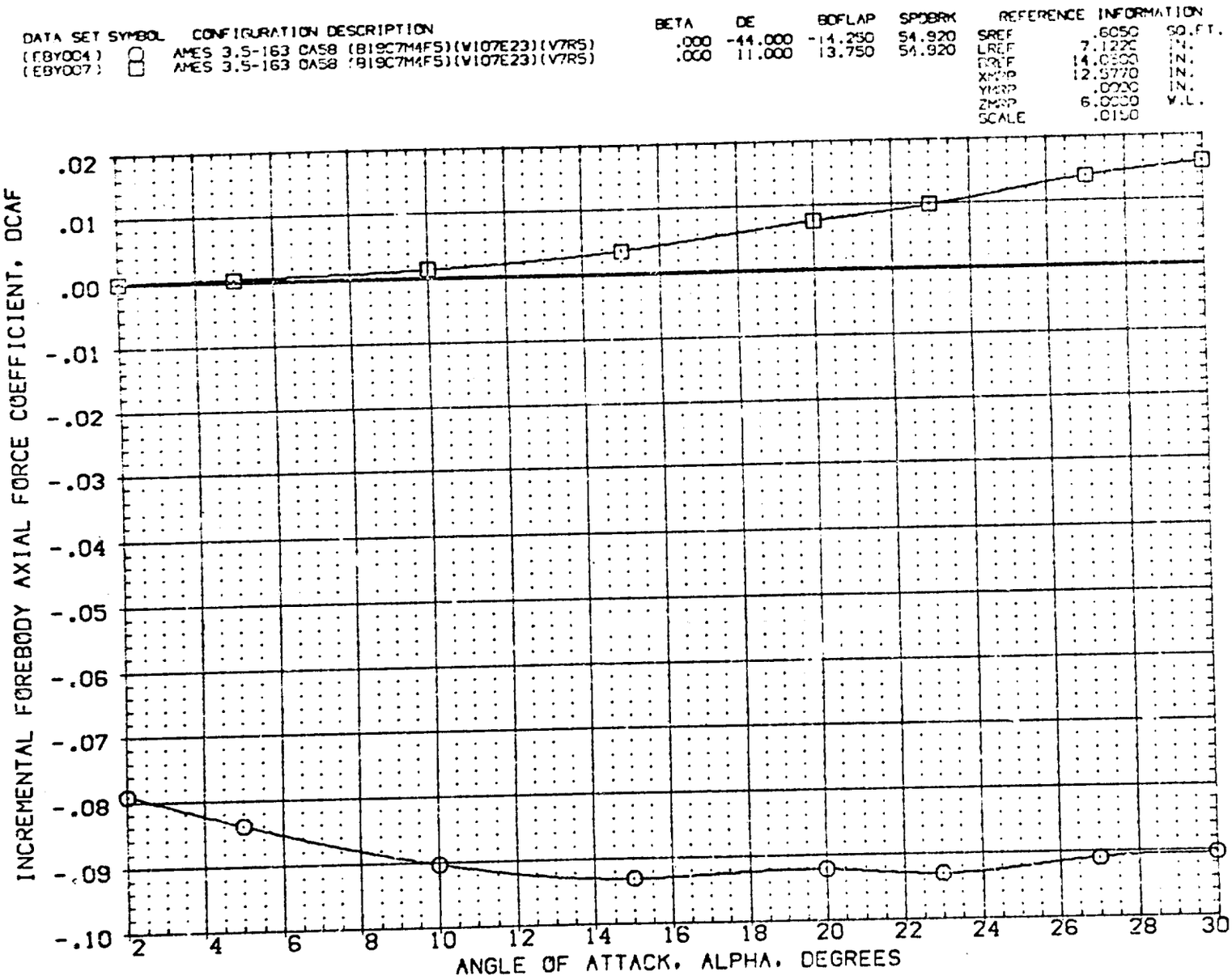


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY004)	∃	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(EBY0C7)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

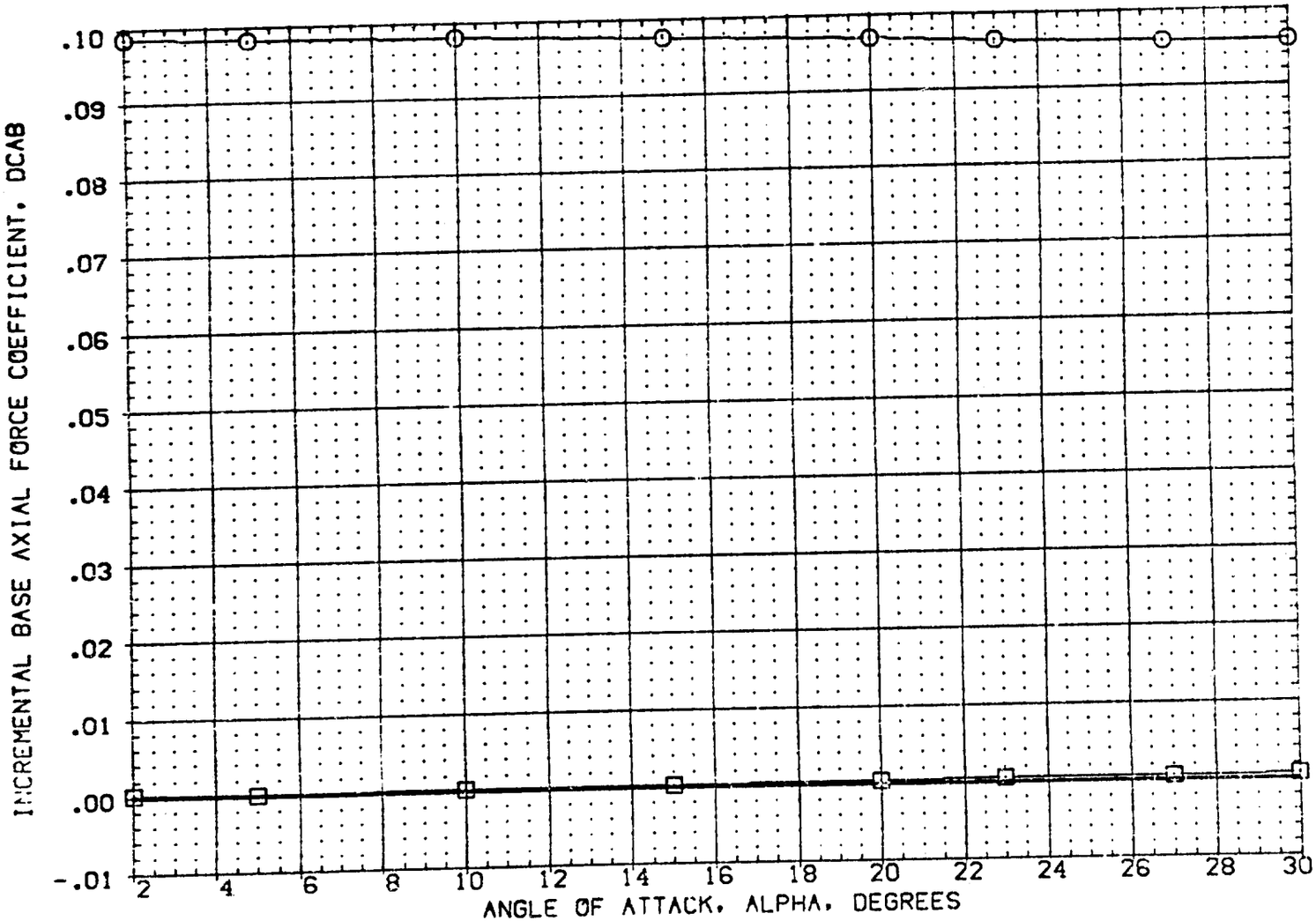


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

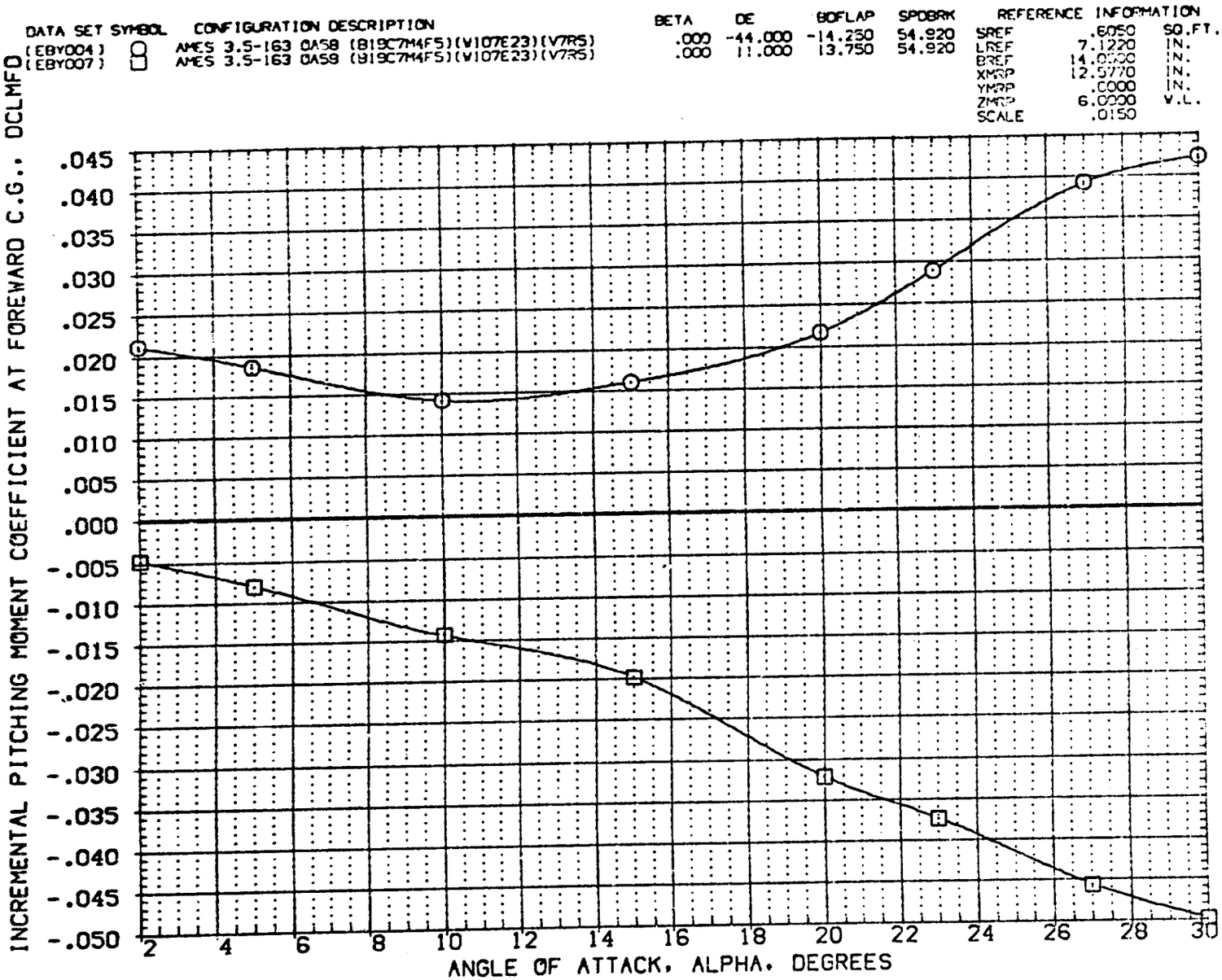


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBYOC4)	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7R5)	.000	-44.000	-14.250	54.920
(EBYOC7)	AMES 3.5-163 CASB (B19C7M4F5)(V107E23)(V7K5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

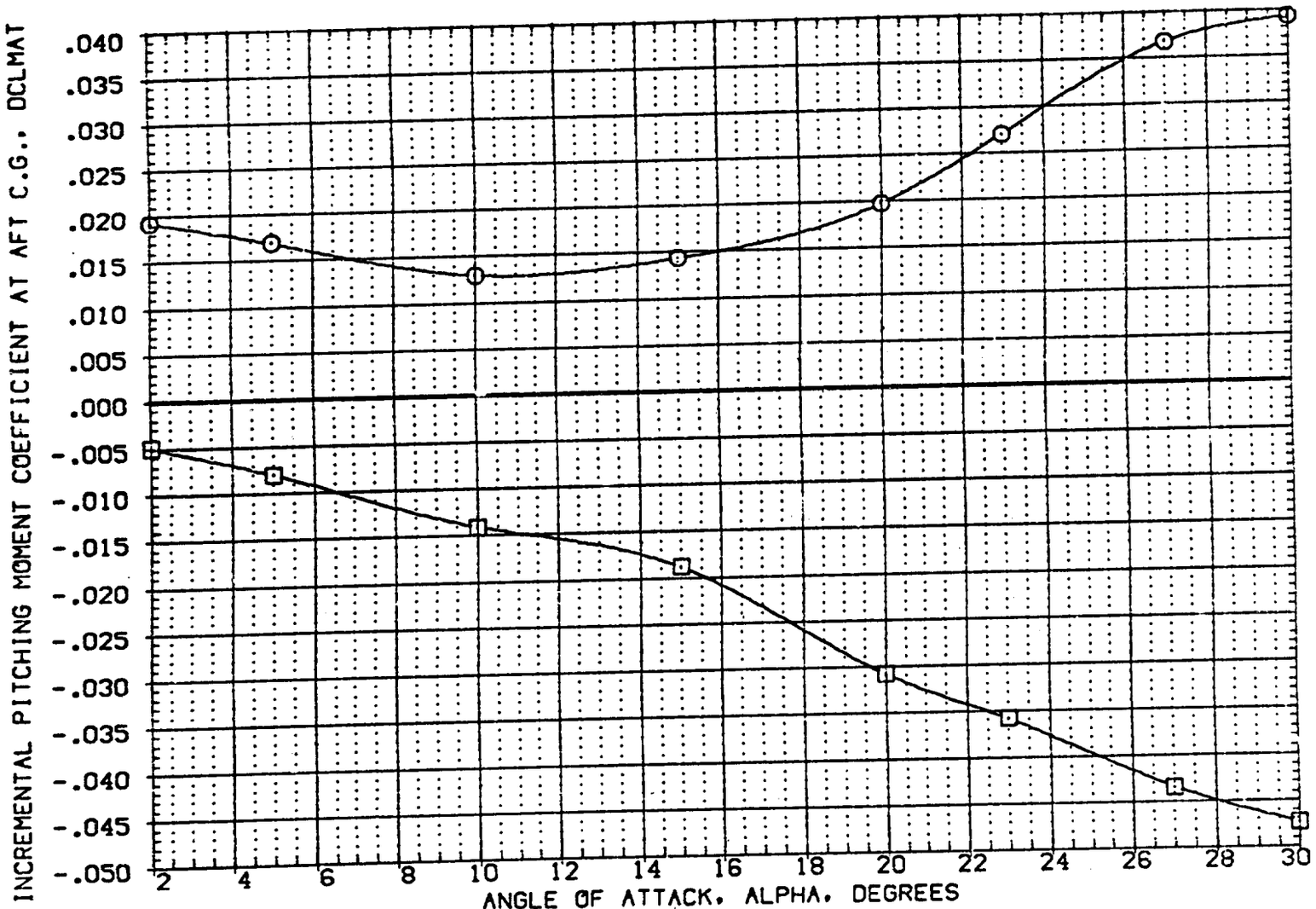


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (FBY004)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	20.000	BDFLAP	-14.250	SPDBRK	54.920	FBY004	-44.000	FBY015	.000	LREF	7.1220	IN.
◇	30.000	RUDDER	.000			FBY007	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

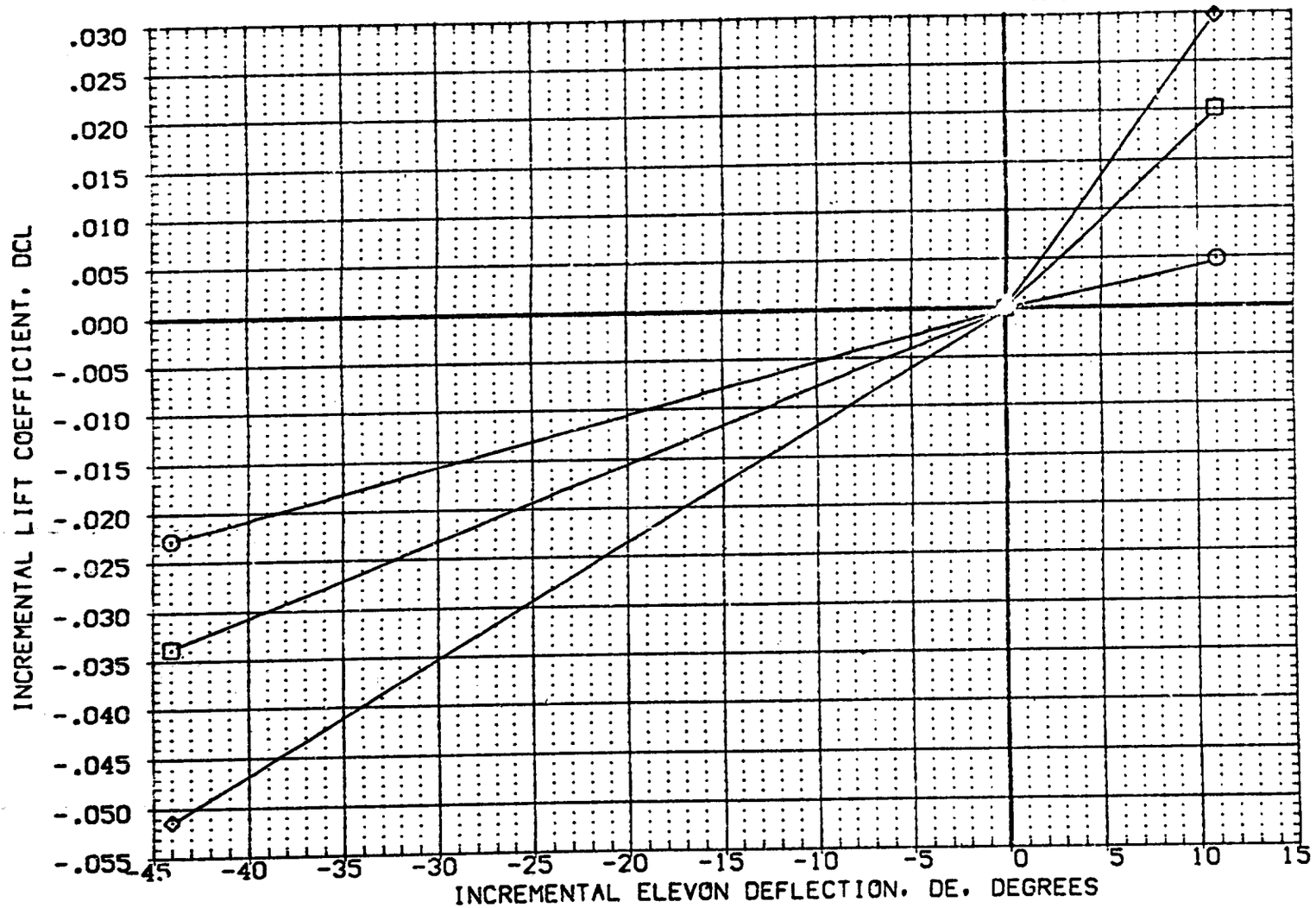


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (FBY004)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	20.000	BOFLAP	-14.250	SPOBRK	54.920	FBY004	-44.000	FBY015	.000	LREF	7.1220	IN.
◇	30.000	RUDDER	.000			FBY007	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

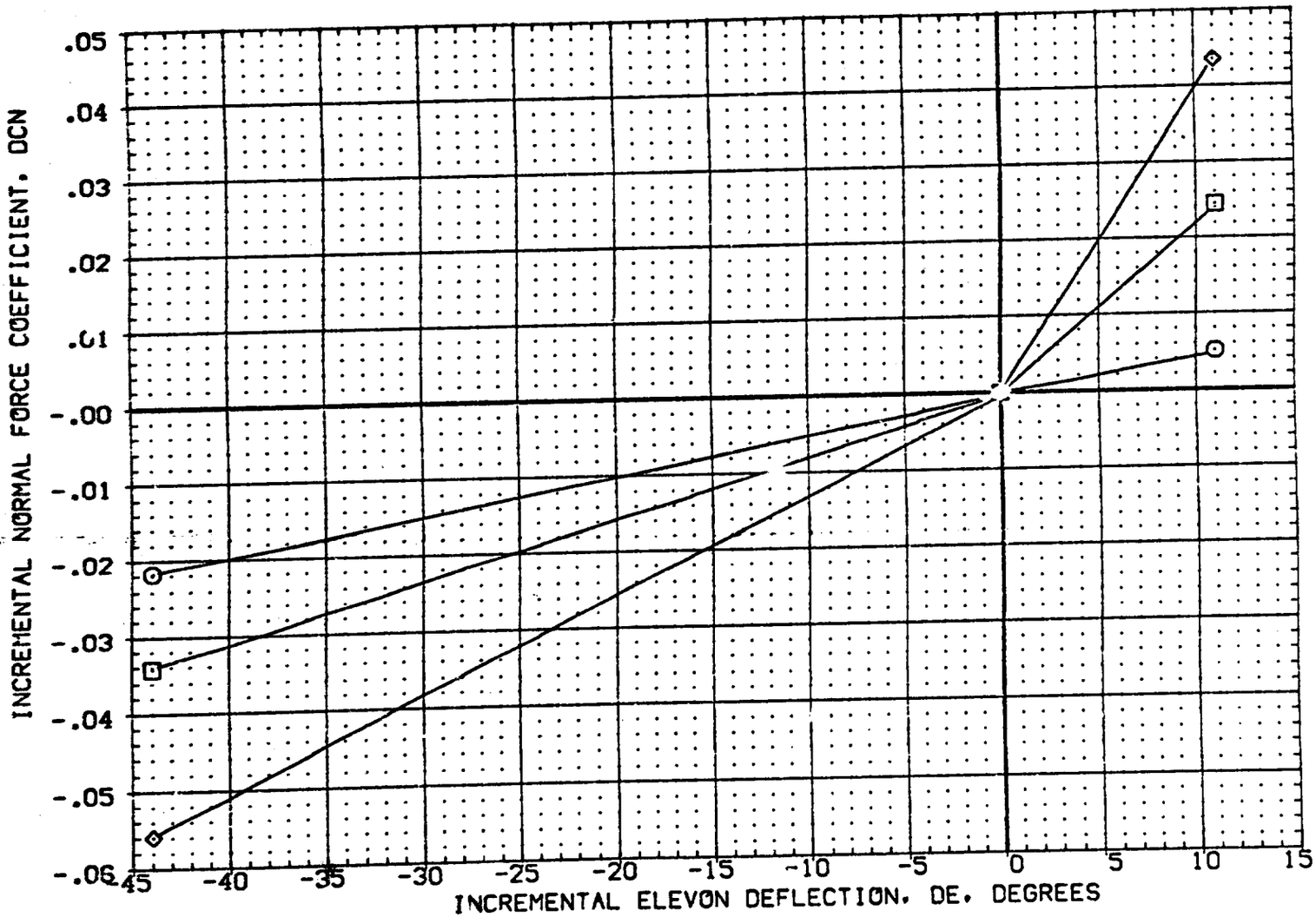


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (FBY004)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	20.000	BOFLAP	-14.250	SPDBRK	54.920	FBY004	-44.000	FBY015	.000	LREF	7.1220	IN.
◇	30.000	RUDDER	.000			FBY007	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

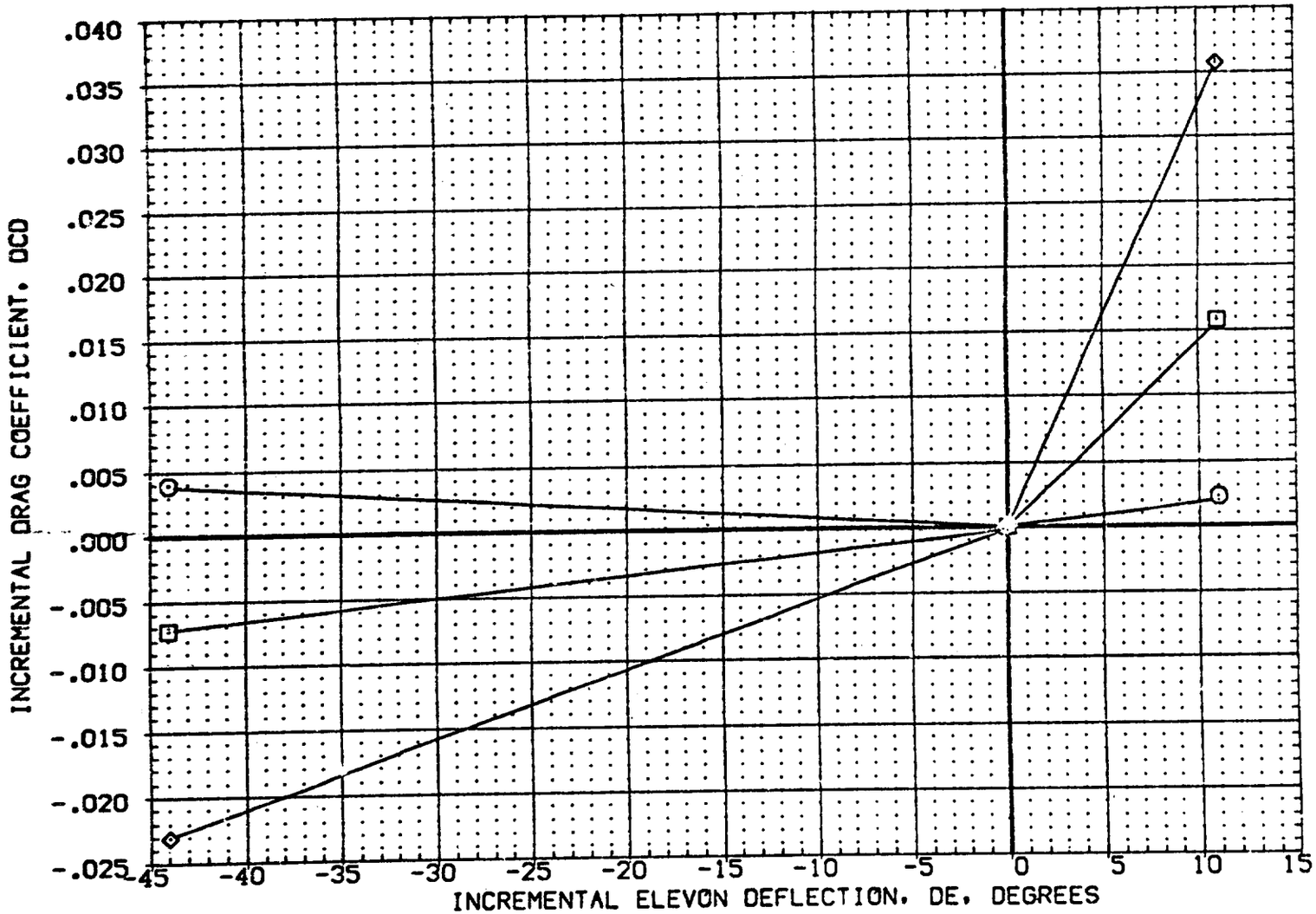


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

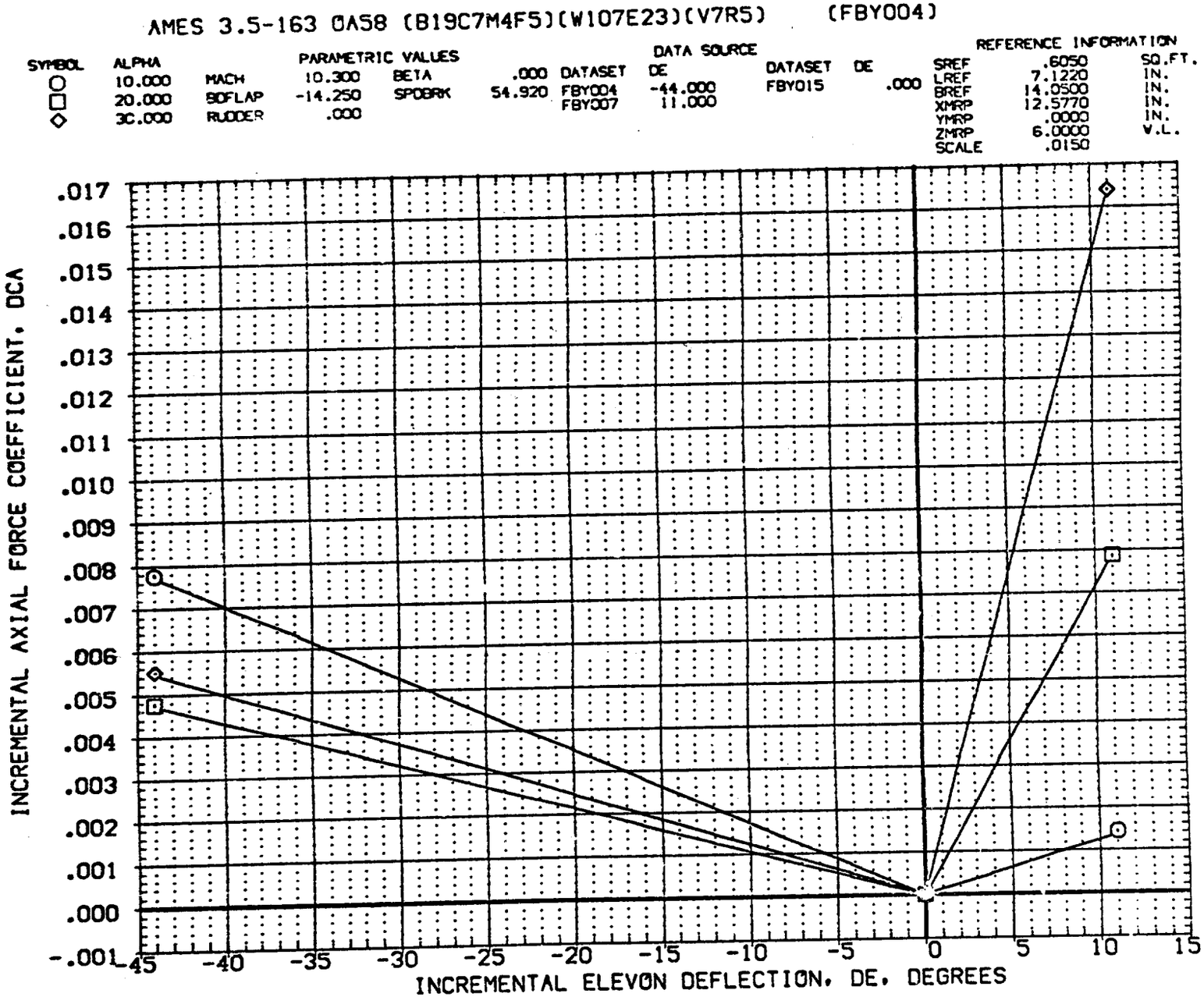


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

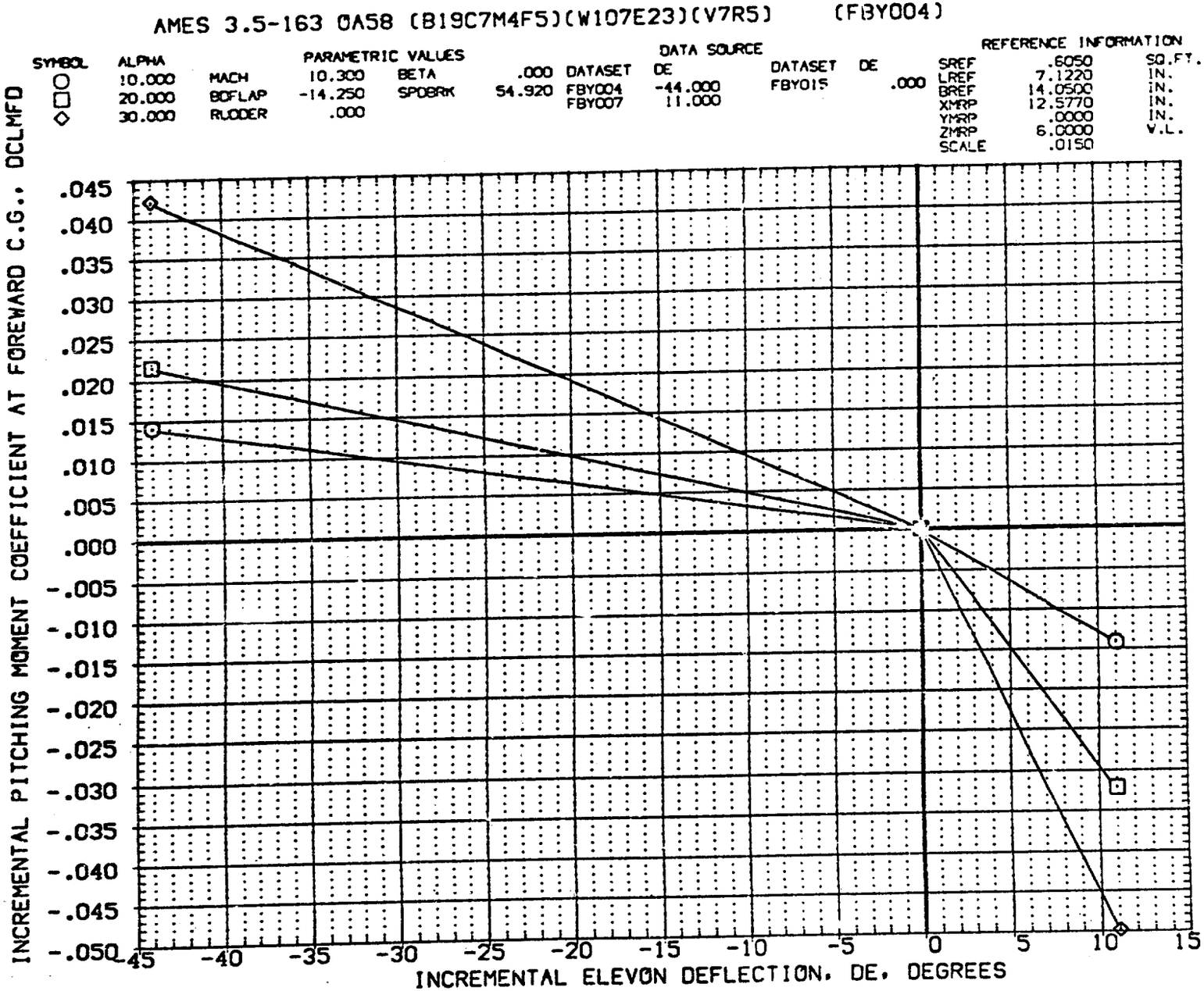


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (FBY004)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	10.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	
□	20.000	BOFLAP	-14.250	SPOBRK	54.920	FBY004	-44.000	FBY015	.000	
◇	30.000	RUDDER	.000			FBY007	11.000			

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

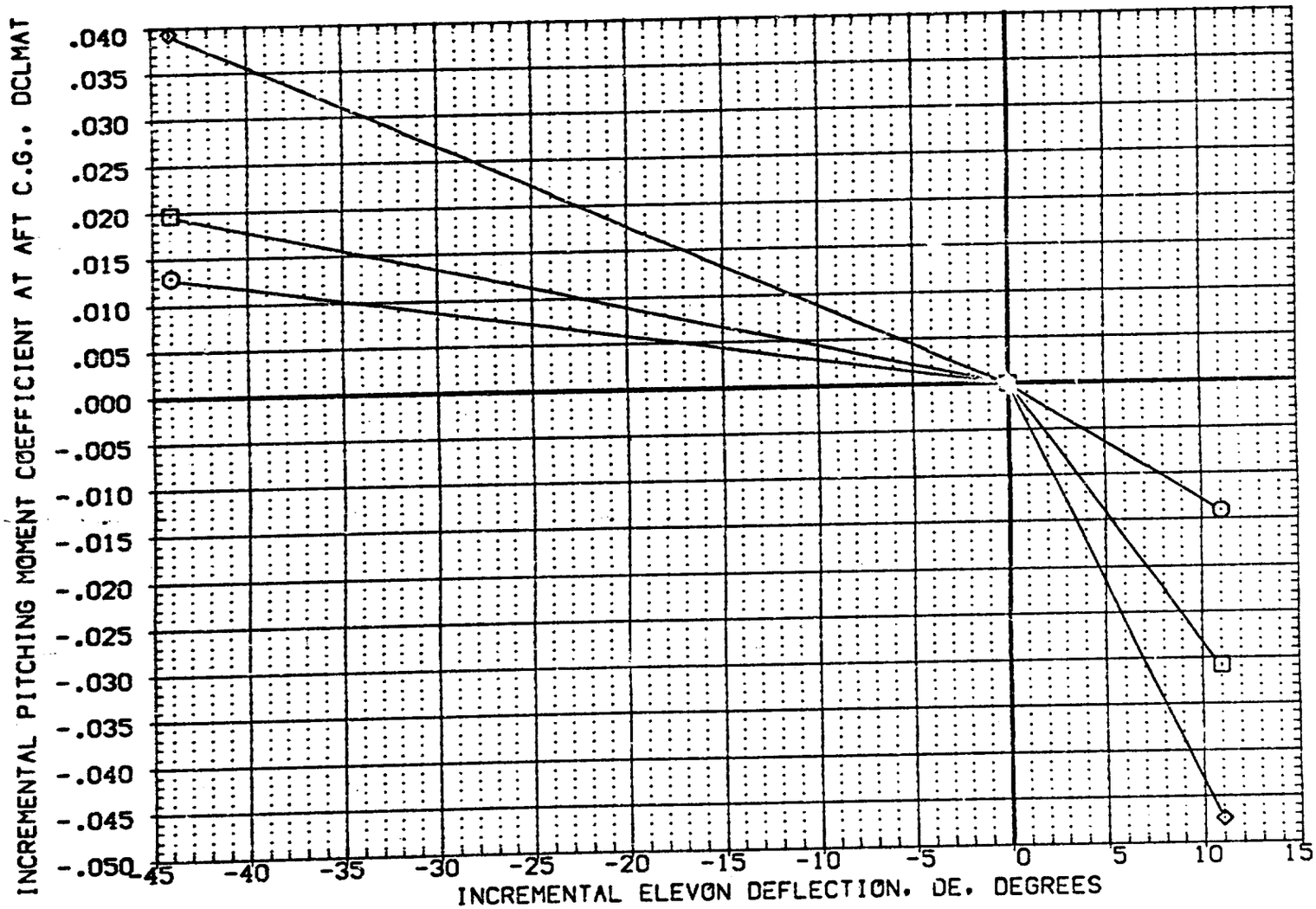


FIG. 6 CONFIGURATION -139B ELEVON EFFECTIVENESS AT MACH 10.3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(*BY002)	□	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(*BY001)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY011)	▽	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY009)	△	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY014)	▷	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920
(BBY012)	◁	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

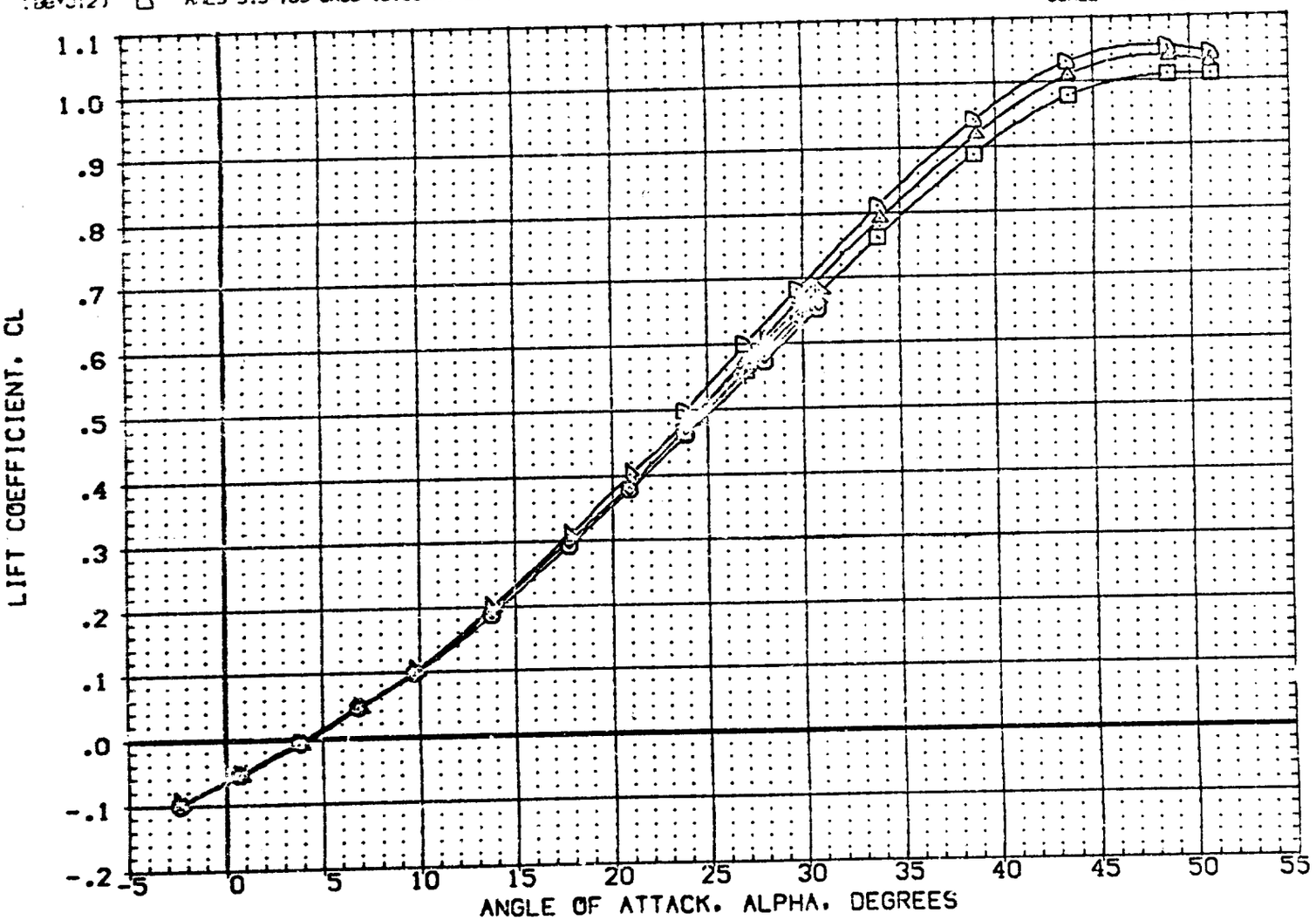


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(KBY002)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY0C1)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY011)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY009)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.030	54.920
(BBYC14)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(BBY012)		AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	IN.
SCALE	.0150	

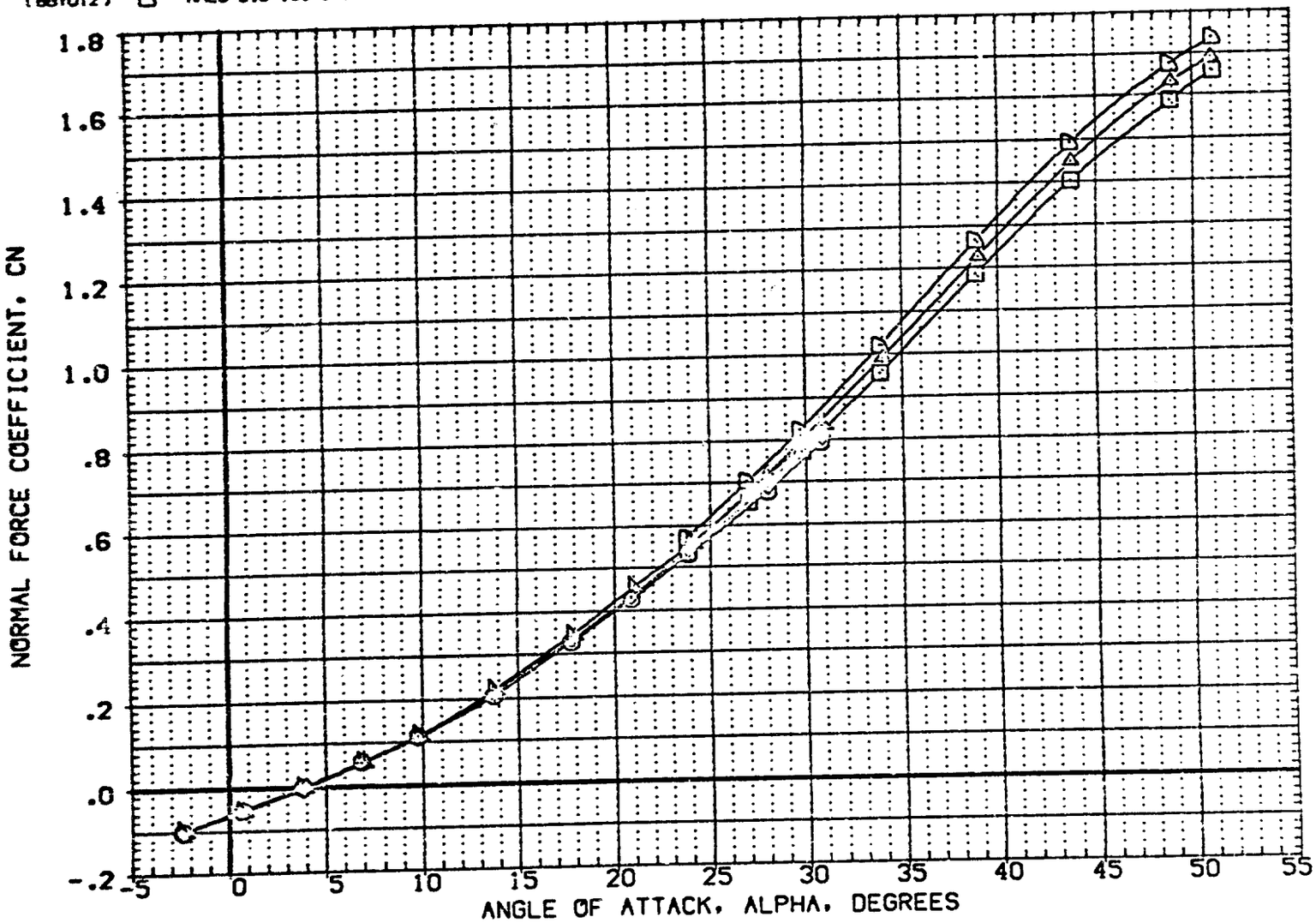


FIG. 7 CONFIGURATION -1398 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(89Y002)	○	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(89Y001)	□	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(89Y011)	△	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(89Y009)	◇	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(89Y014)	▽	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(89Y012)	⊲	AMES 3.5-163 CASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0600	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

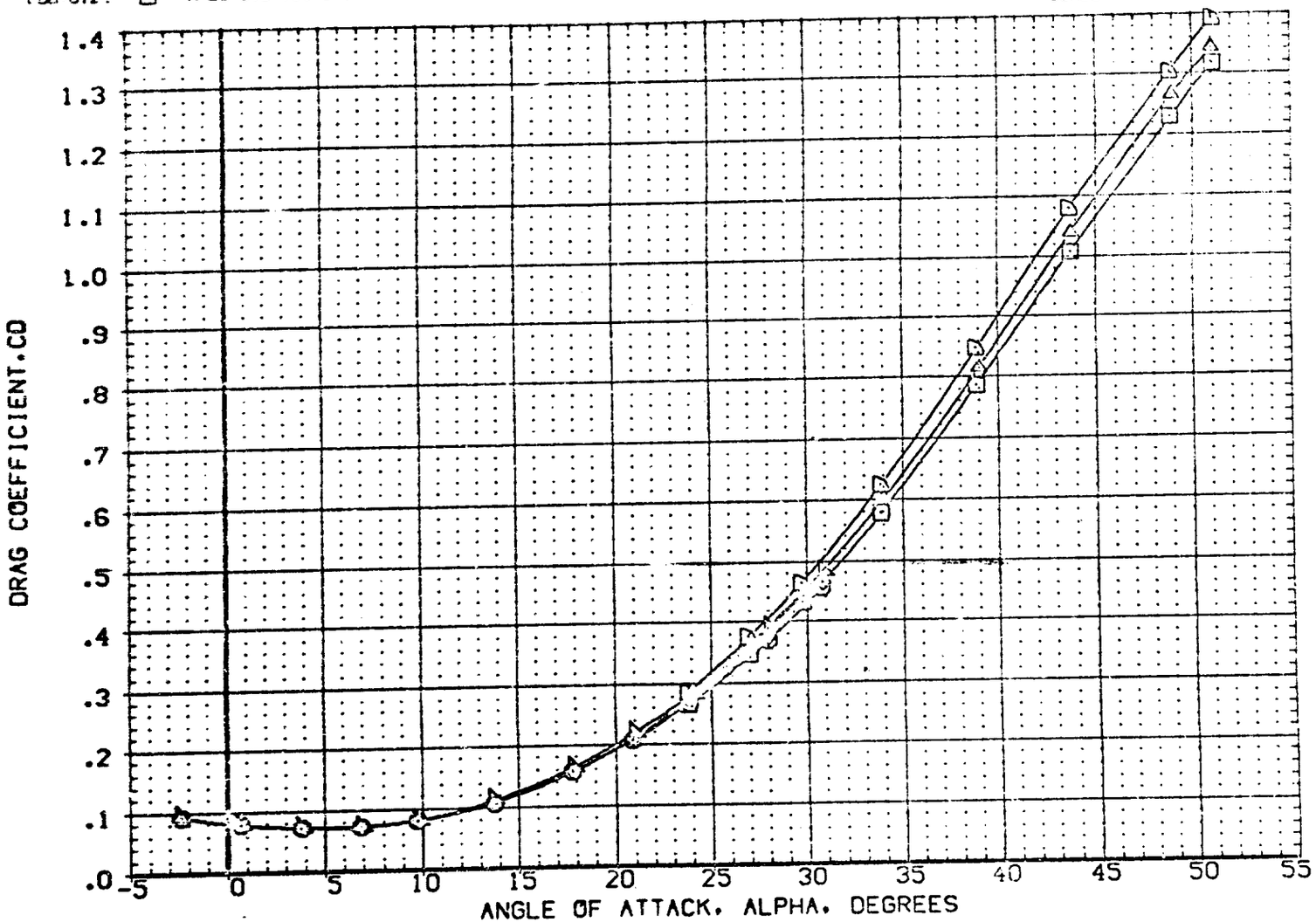


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(RBY002)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(RBY001)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY011)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY009)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY014)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(BBY012)		AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

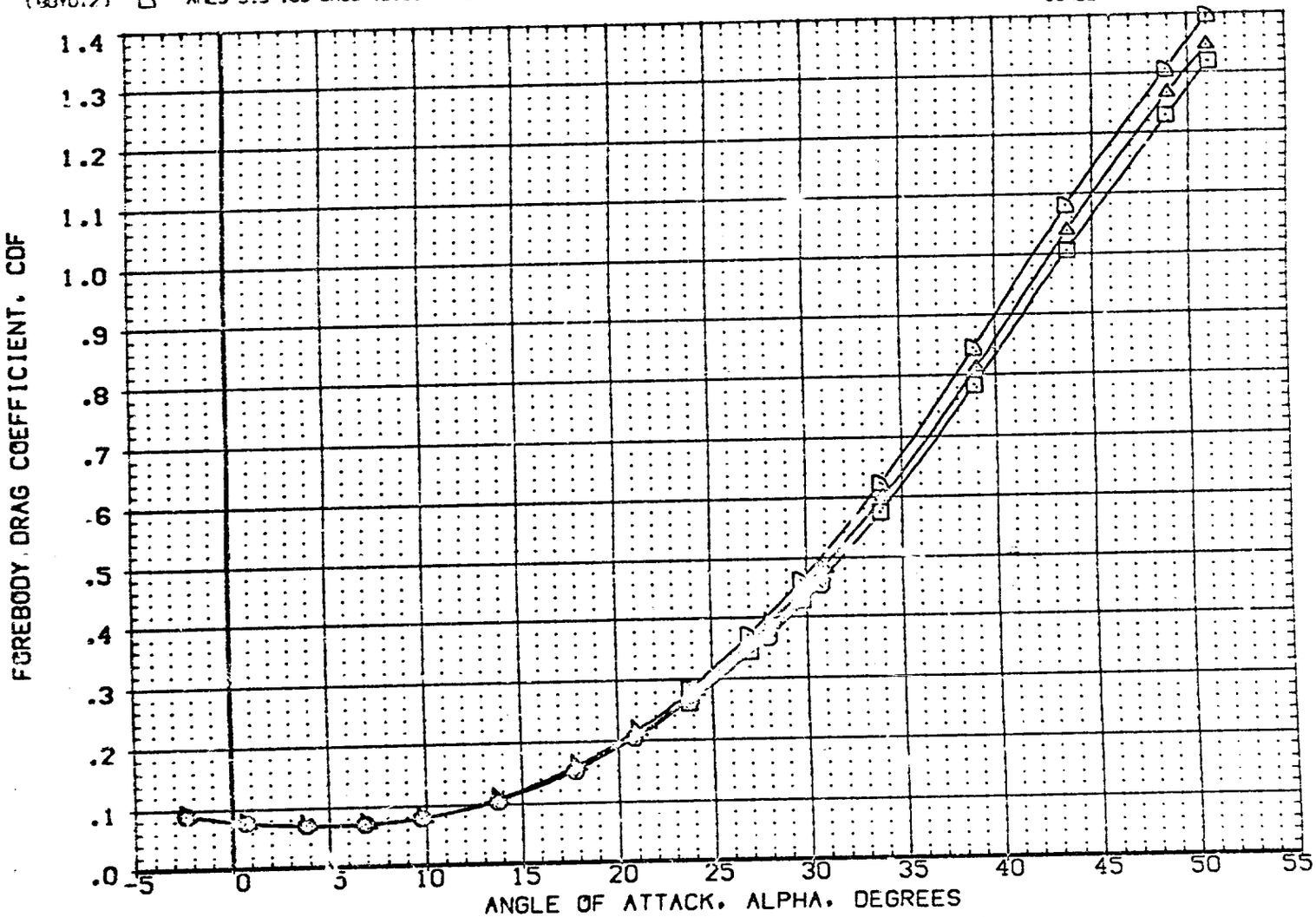


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

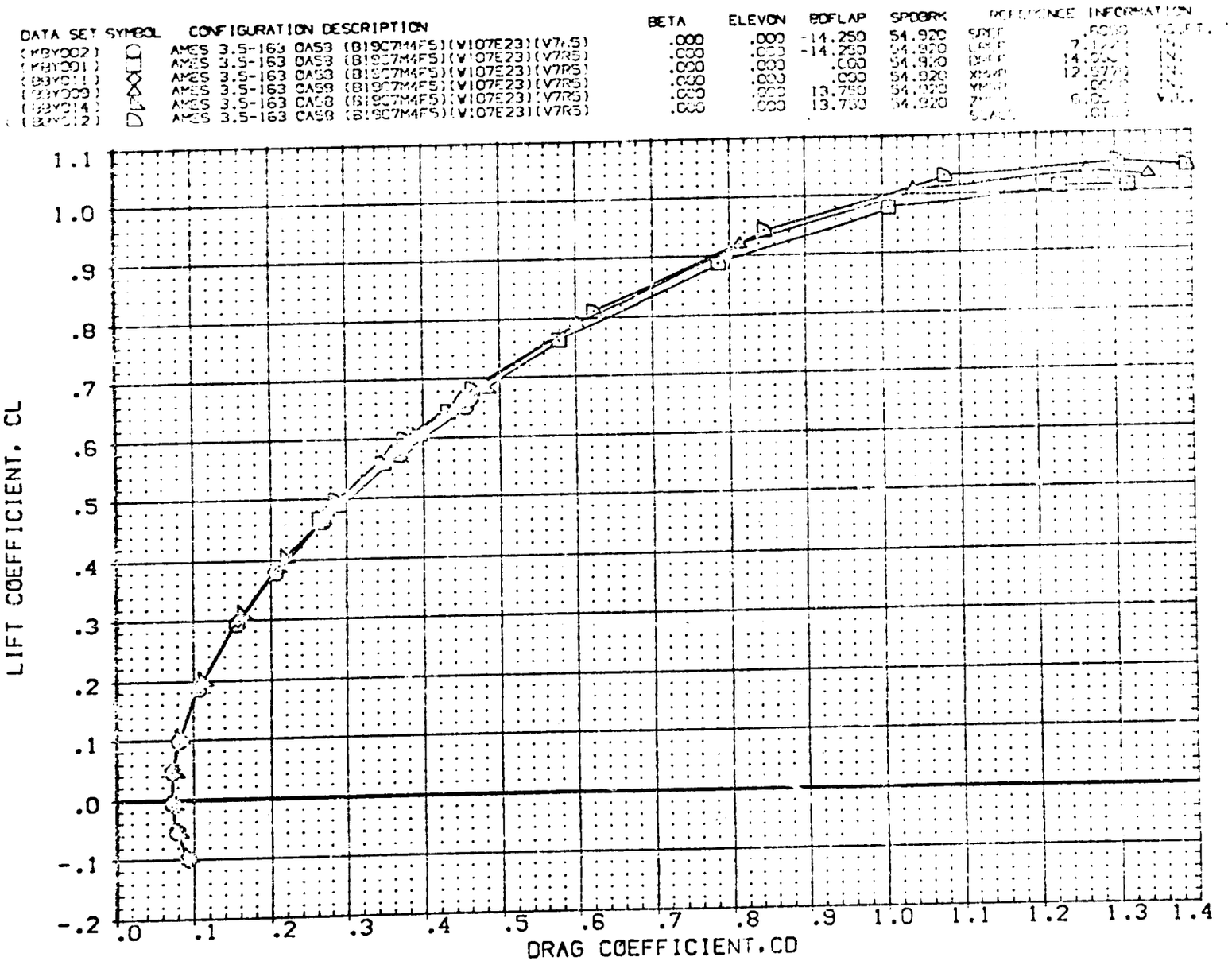


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(KBY002)	□	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	-14.250	5..920
(KBY001)	◇	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(B3YO11)	△	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	.000	54.920
(B3YO09)	▽	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	.000	54.920
(B3YO14)	◁	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	13.750	54.920
(B3YO12)	▷	AMES 3.5-163 CASE (B19C7M4FS)(W107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0900	IN.
XMRP	12.0770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

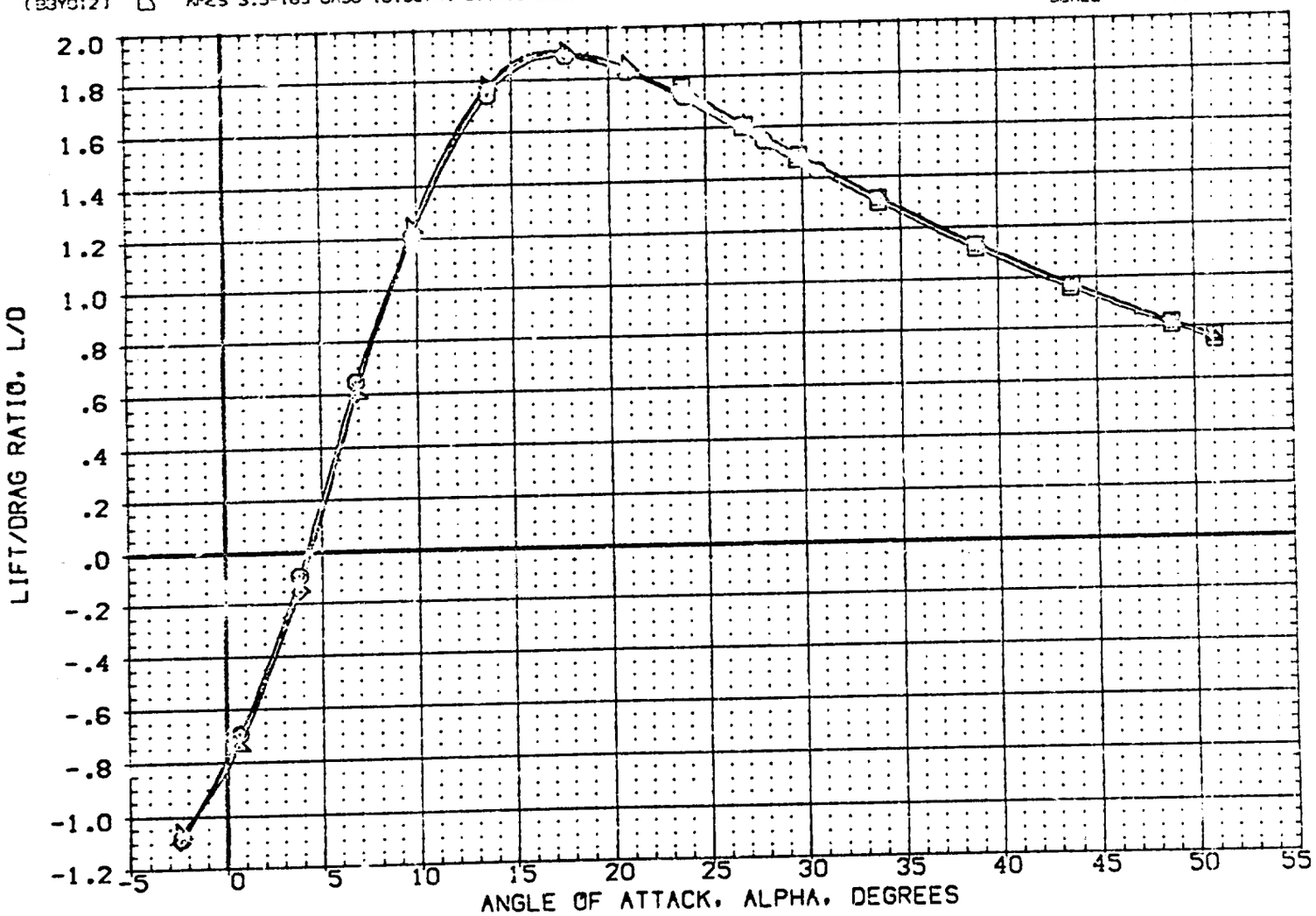


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

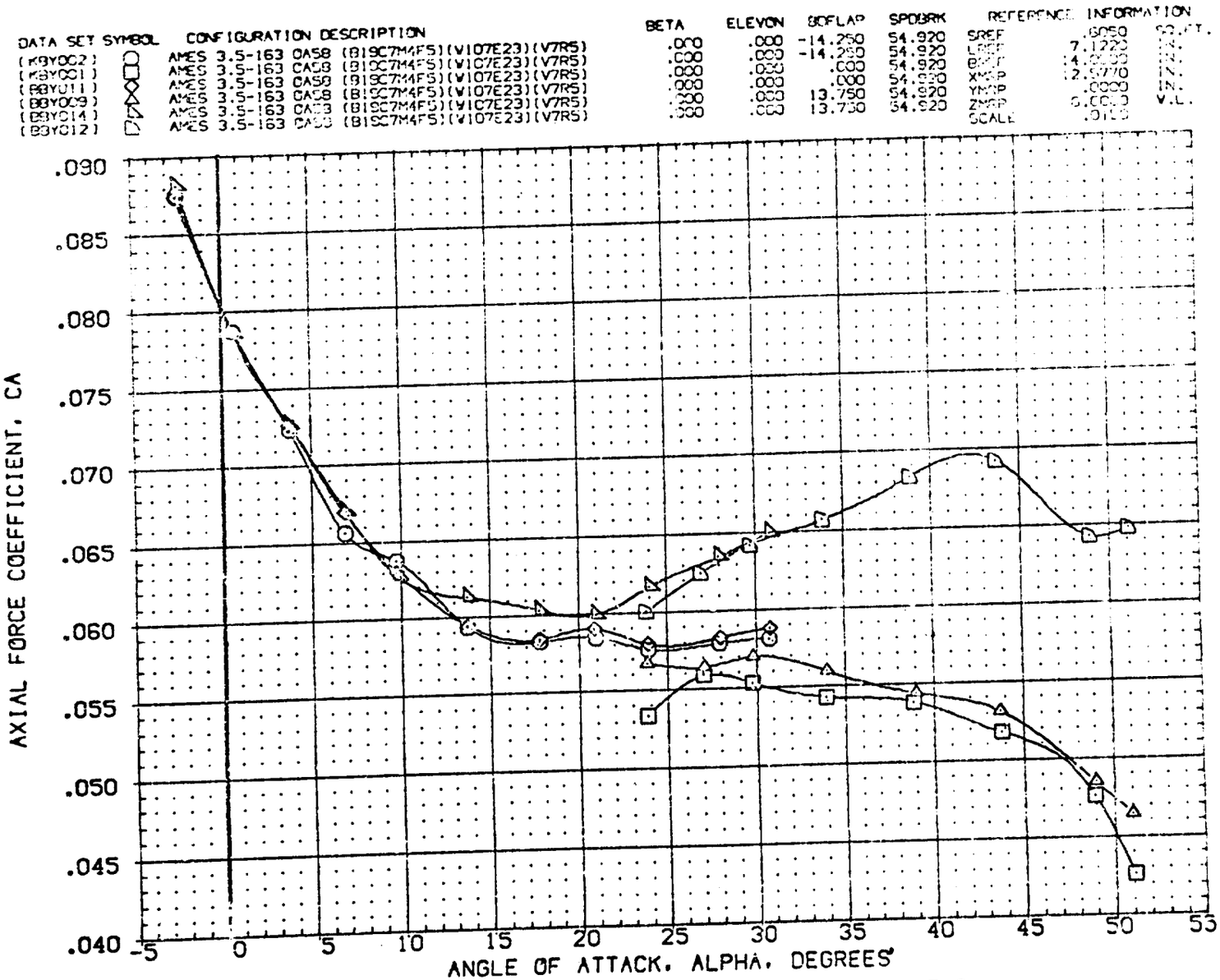


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

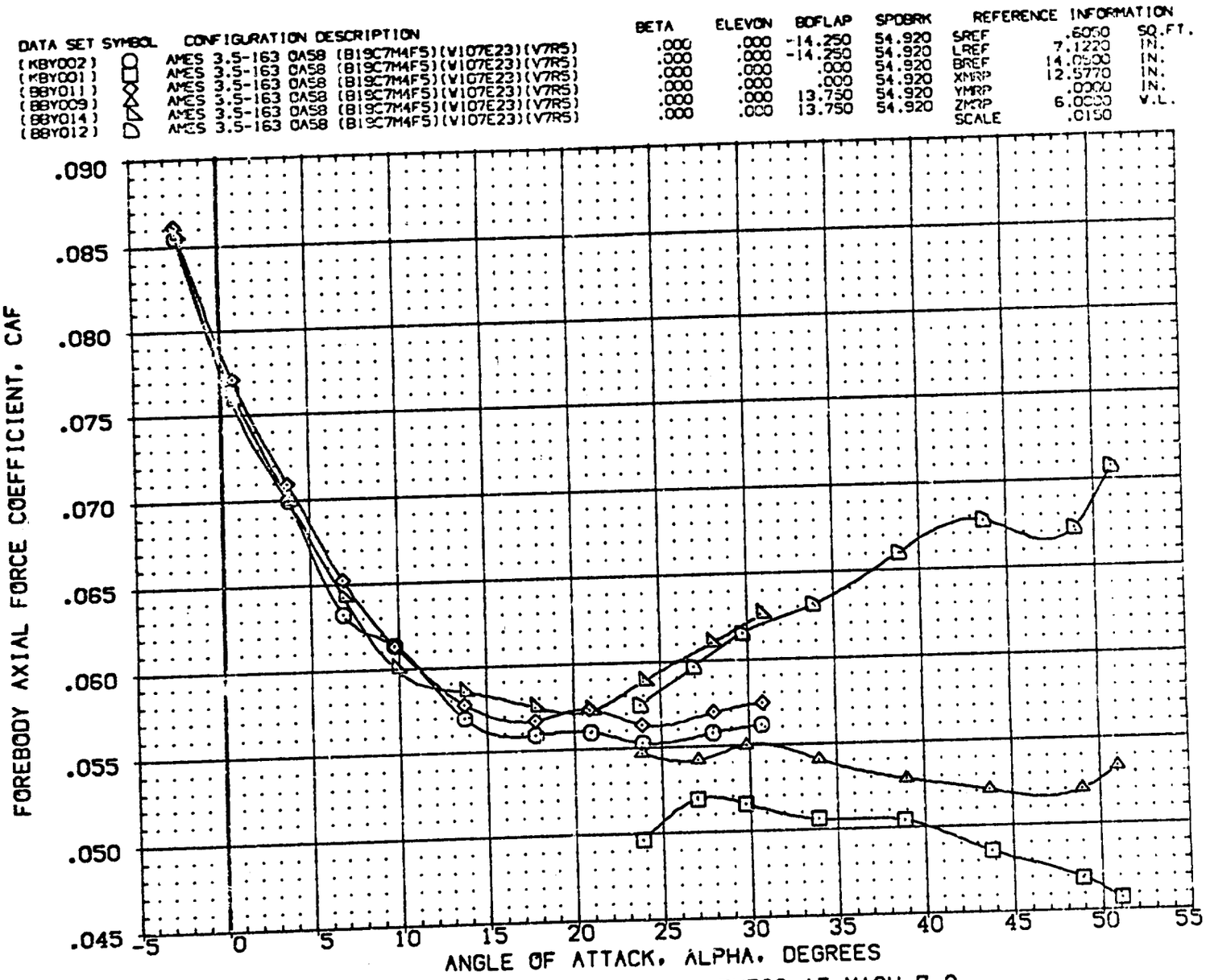


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

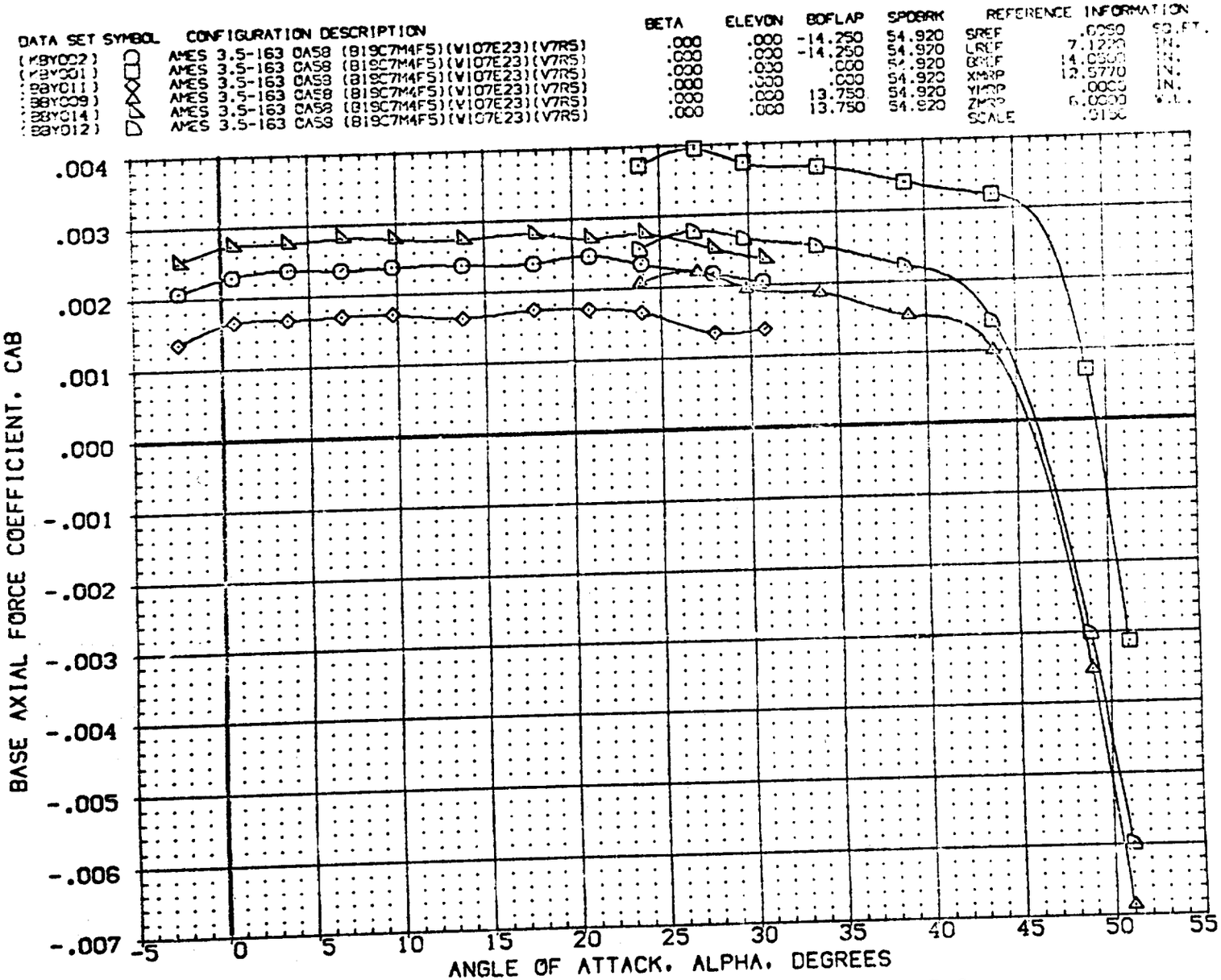


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

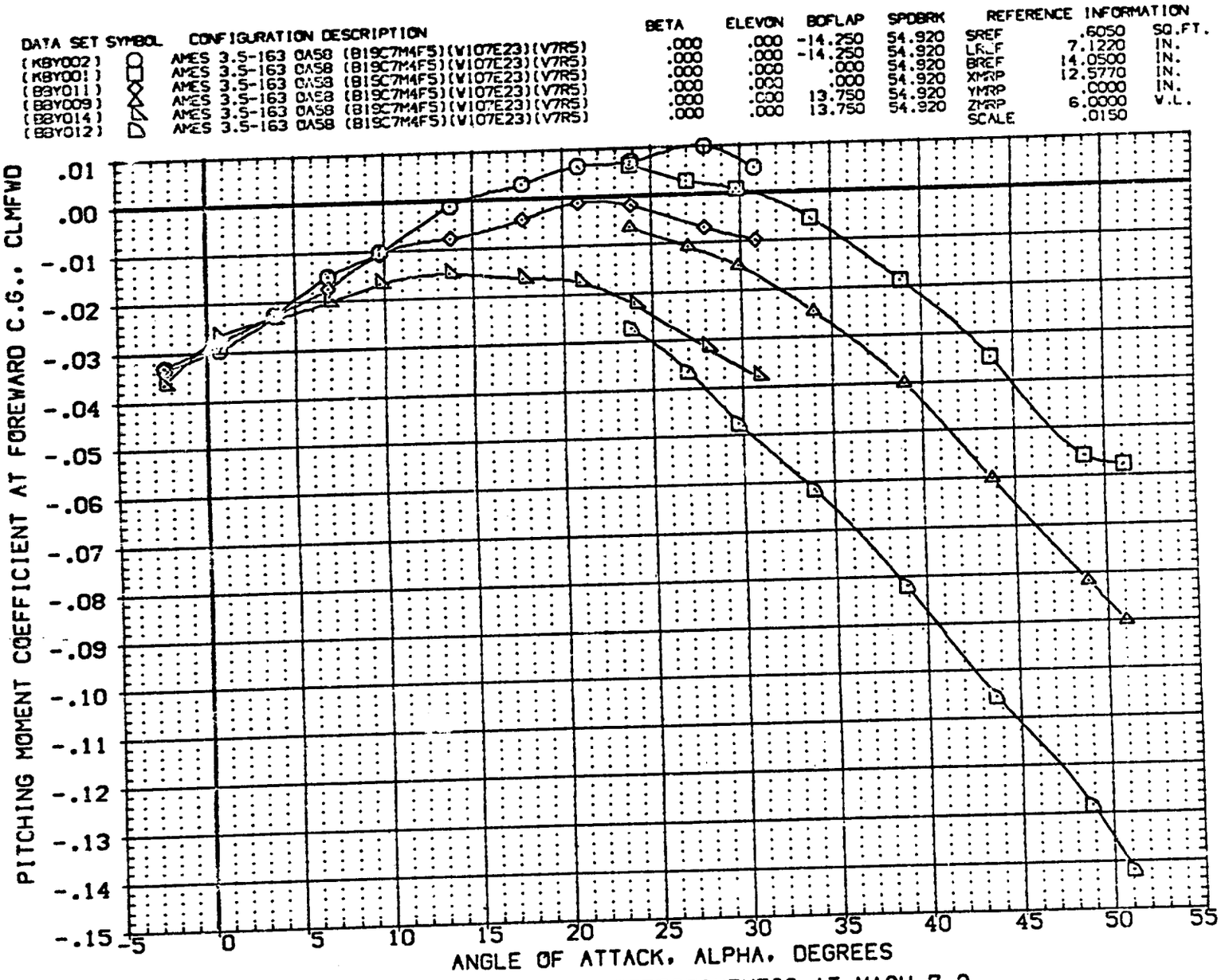


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(KBY002)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY011)	△	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY009)	▽	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(BBY014)	◁	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(BBY012)	▷	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	
BREF	14.0000	
XMRP	12.5000	
YMRP	.0000	
ZMRP	6.0000	
SCALE	.0100	

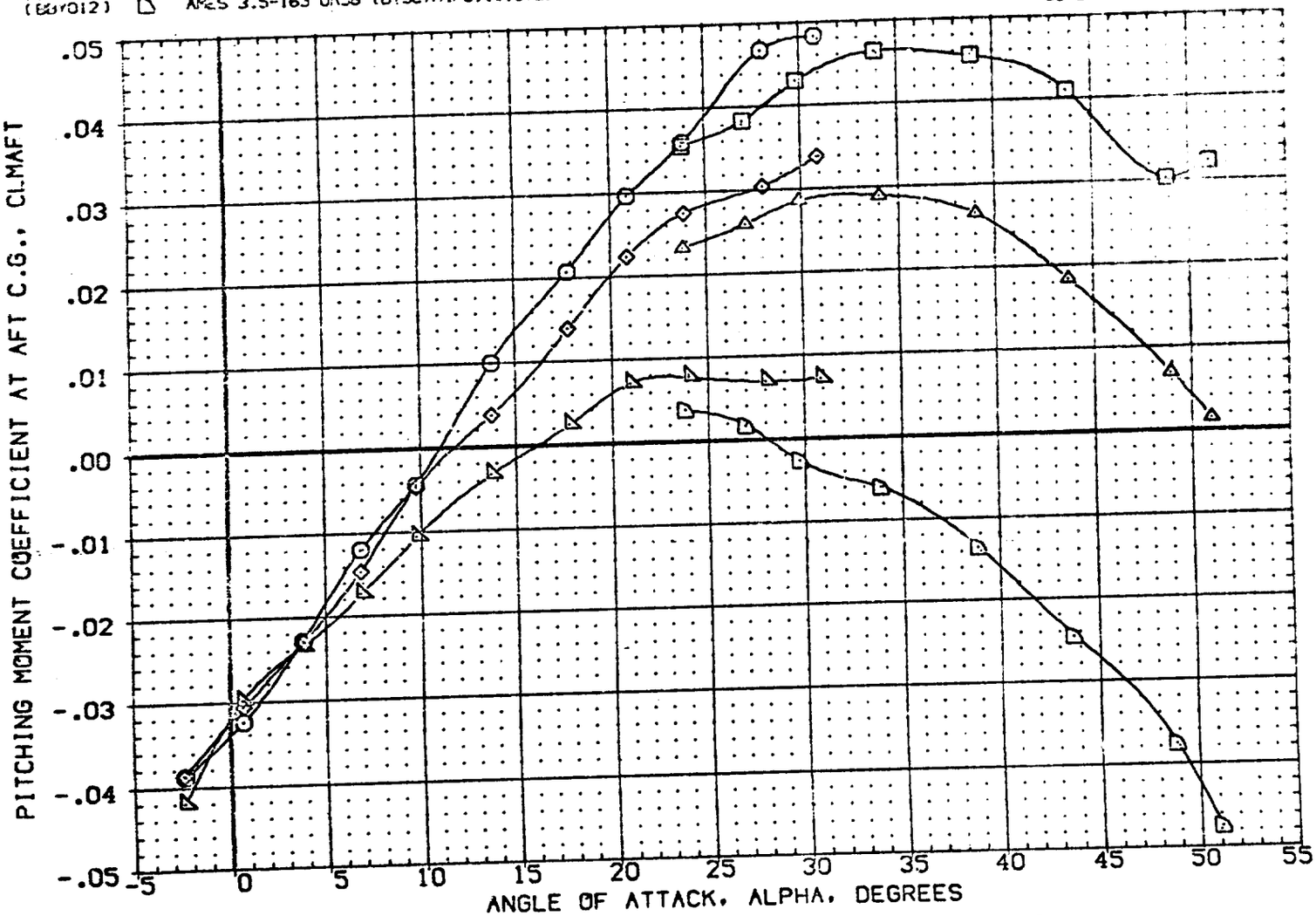


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

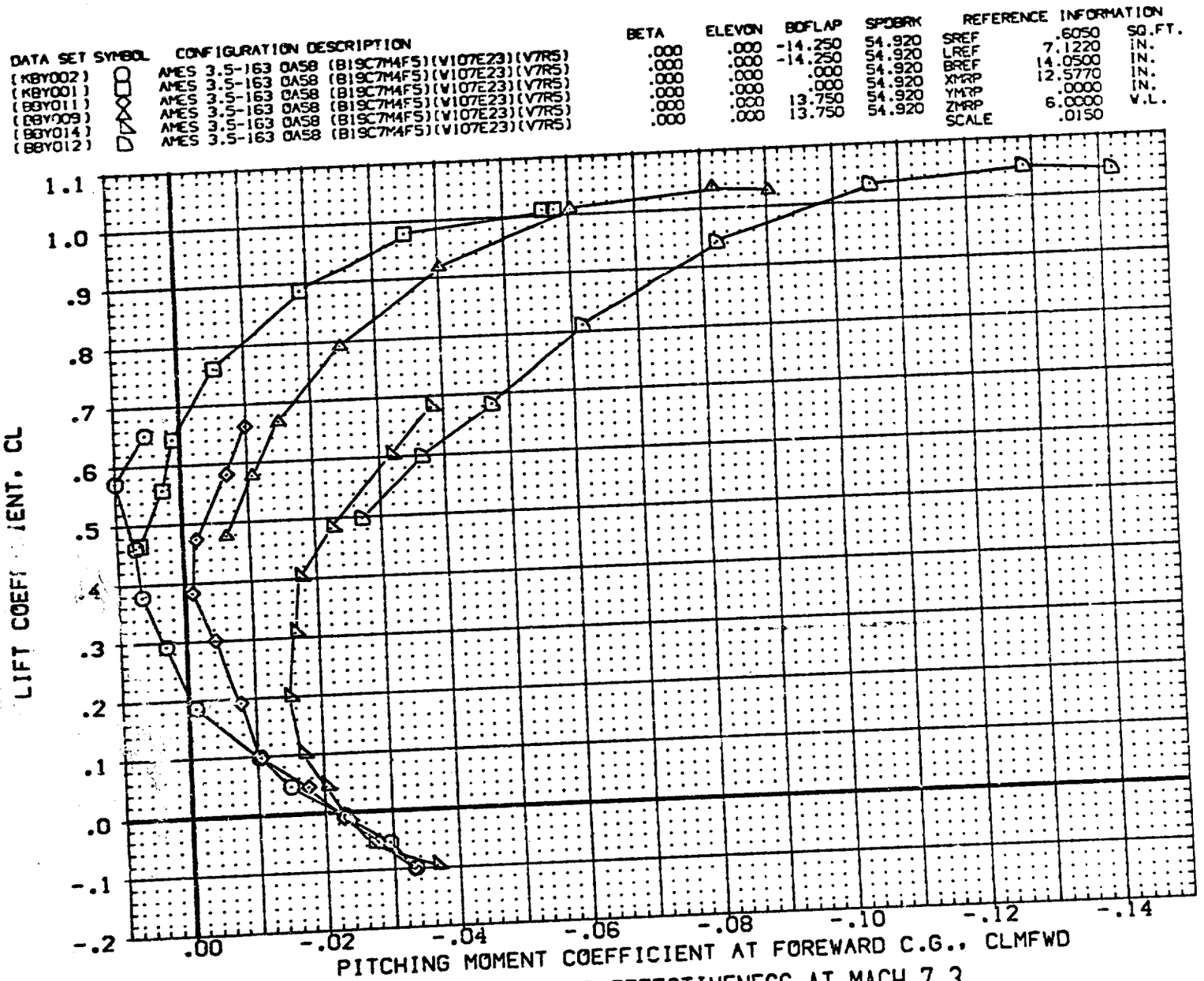


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(KBY002)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(KBY001)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y011)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	.000	54.920
(88Y009)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	.000	54.920
(88Y014)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920
(88Y012)		AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.010	

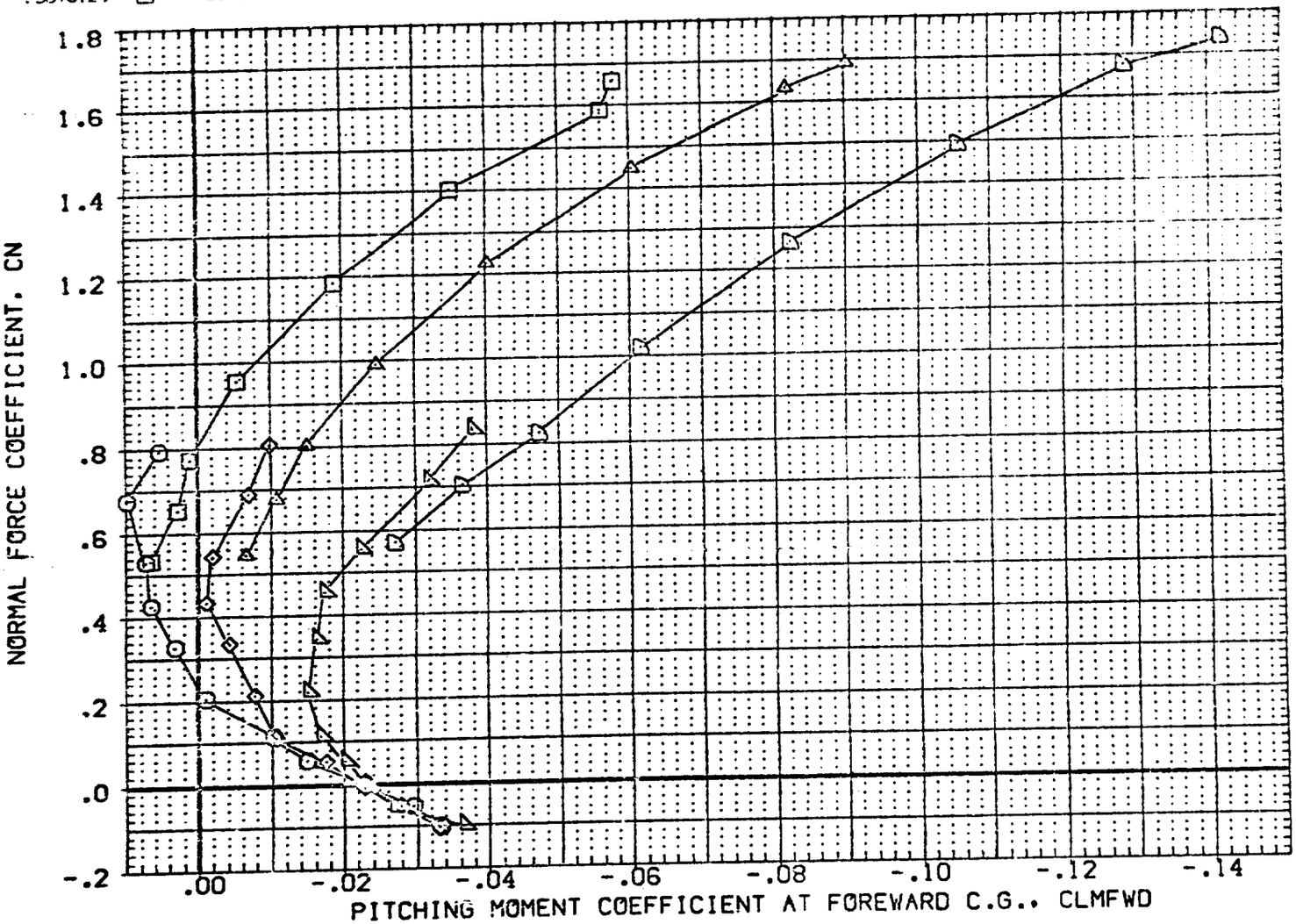


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

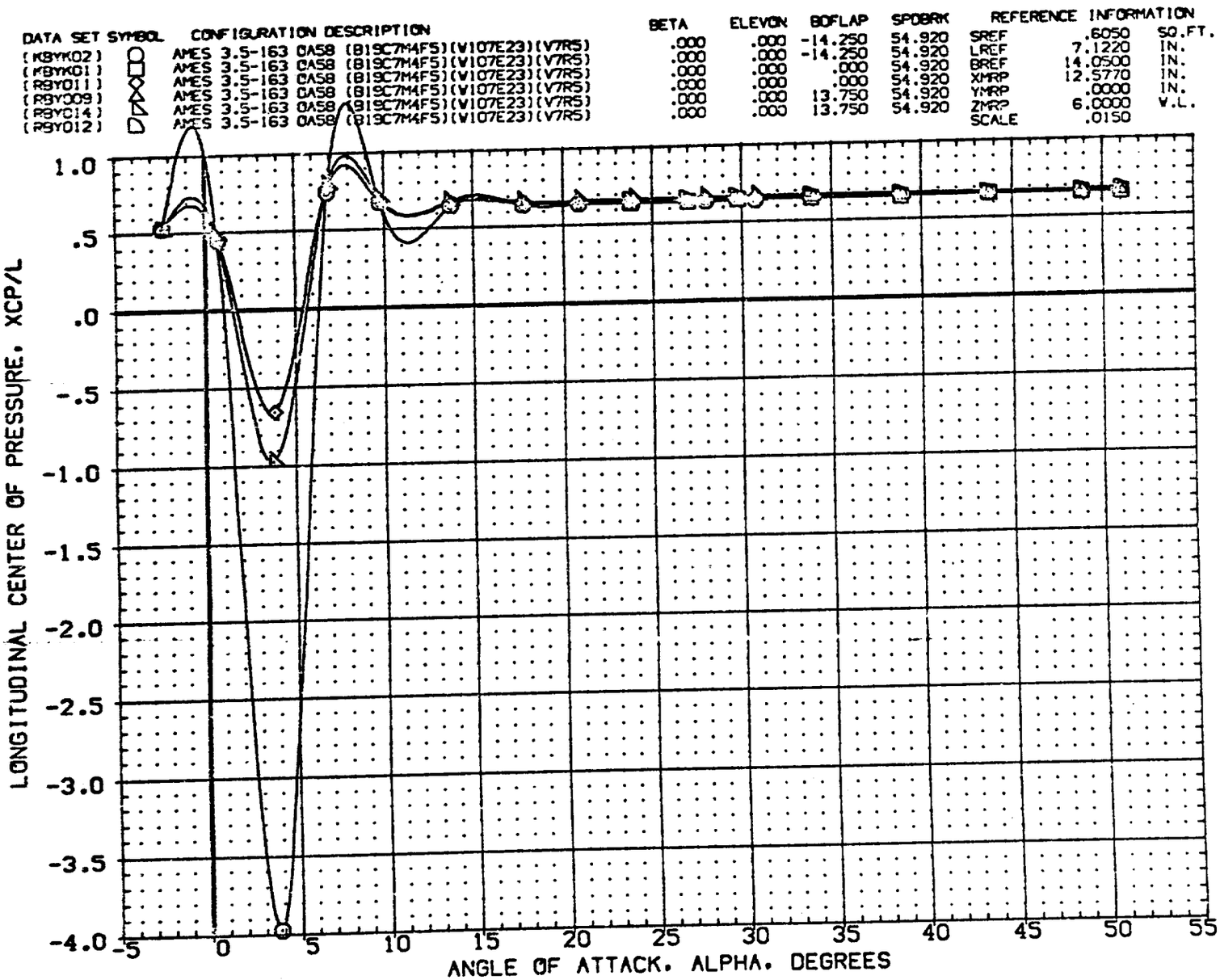


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(HBY002)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

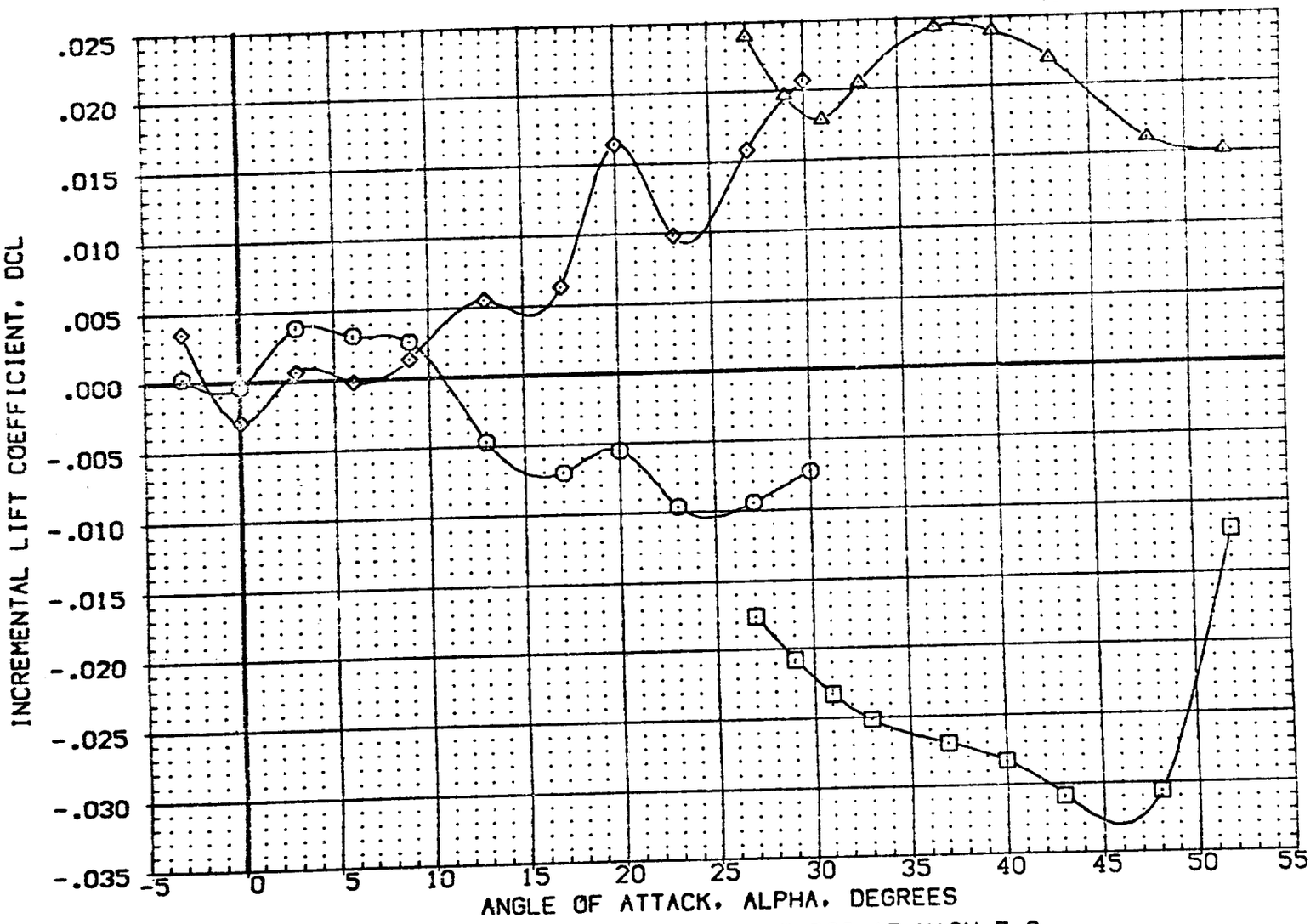


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(HBY002)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	⊠	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	⧖	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

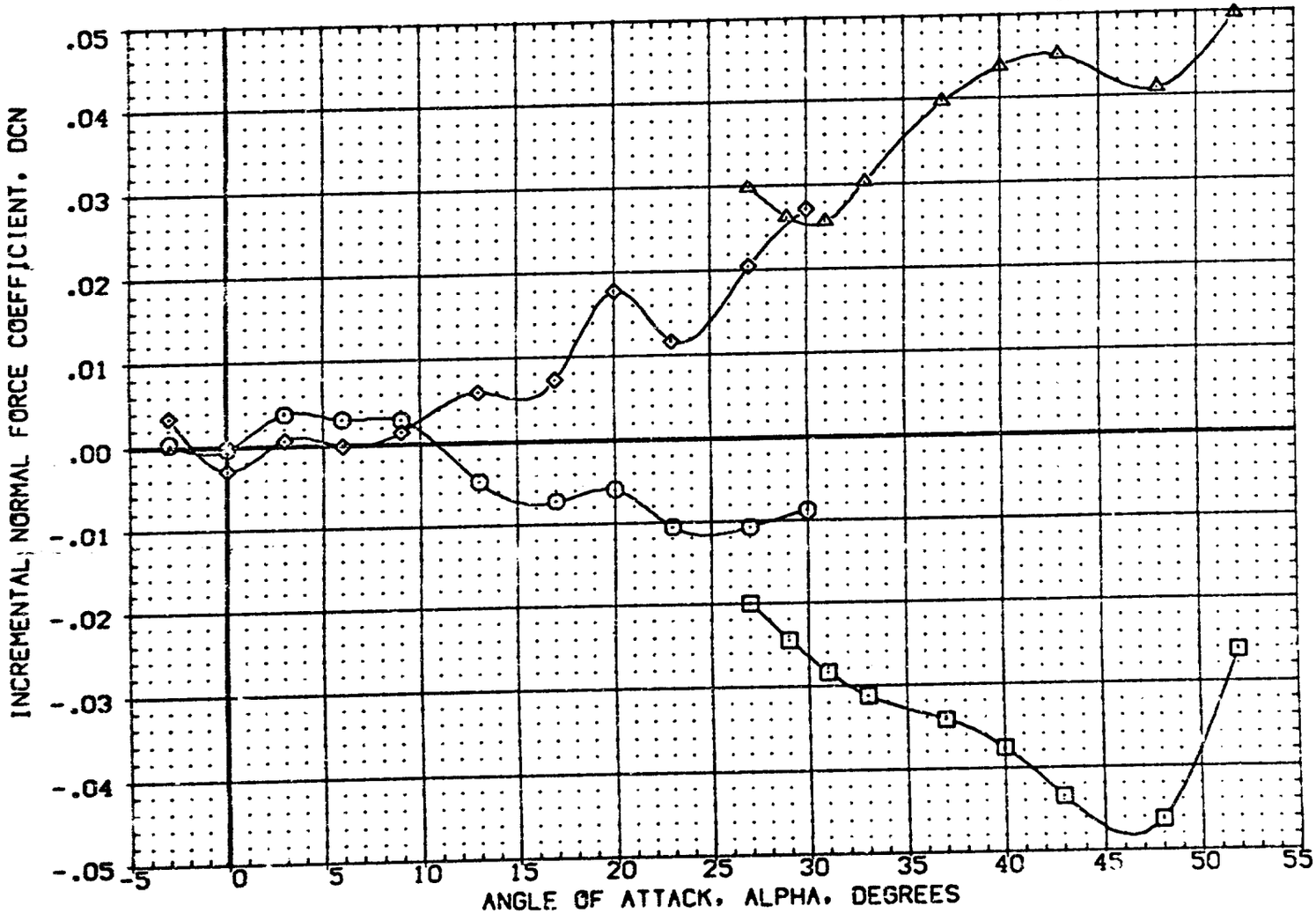


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DDF	SPDBRK
(4BY002)	AMES 3.5-163 CASB (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(4BY001)	AMES 3.5-163 CASB (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 CASB (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 CASB (B19C7M4F5)(W107E23)(V7R6)	.000	.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6550	SQ.FT.
LREF	7.1220	IN.
BREF	14.0000	IN.
XMRP	12.5710	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0100	

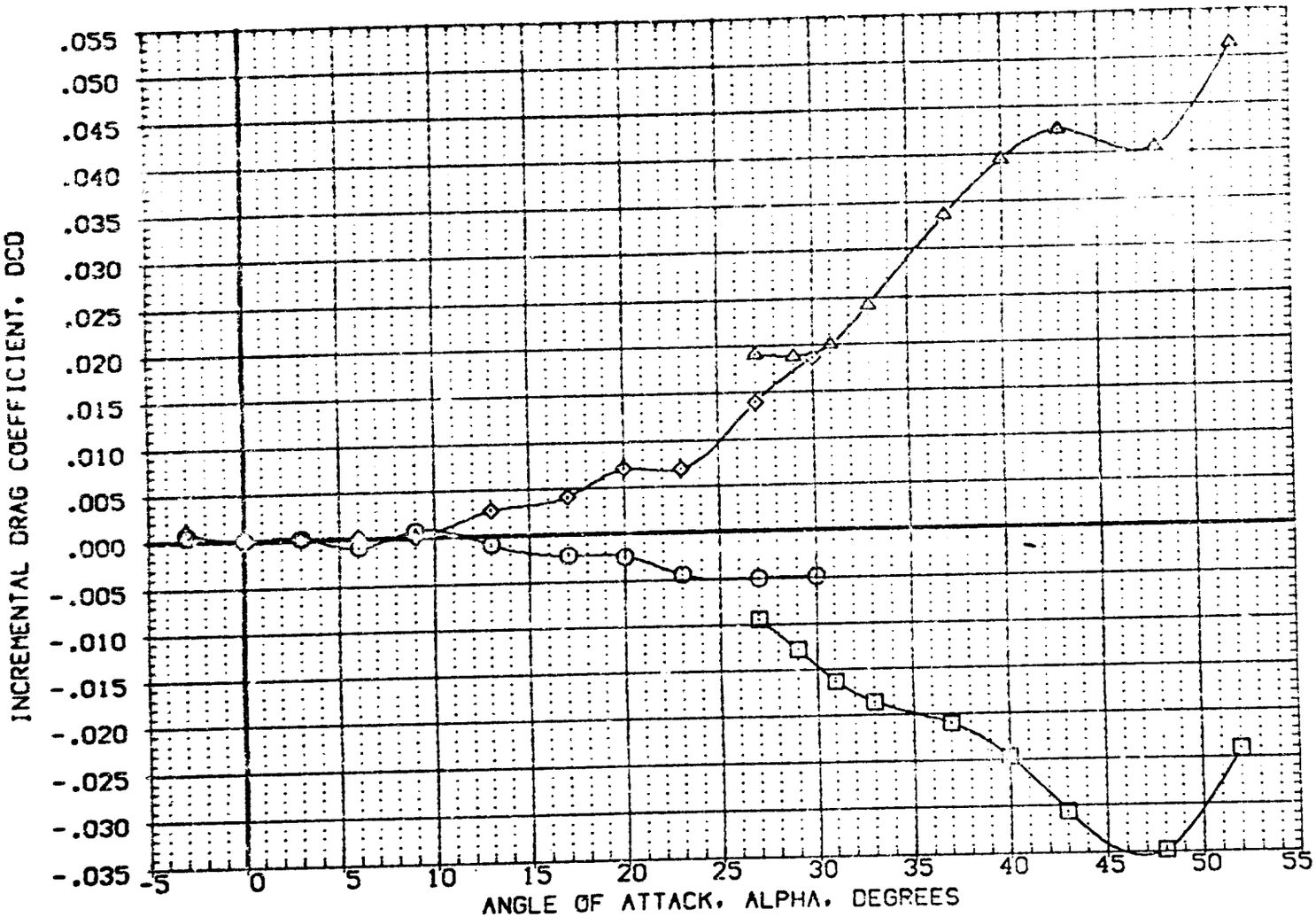


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(HBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

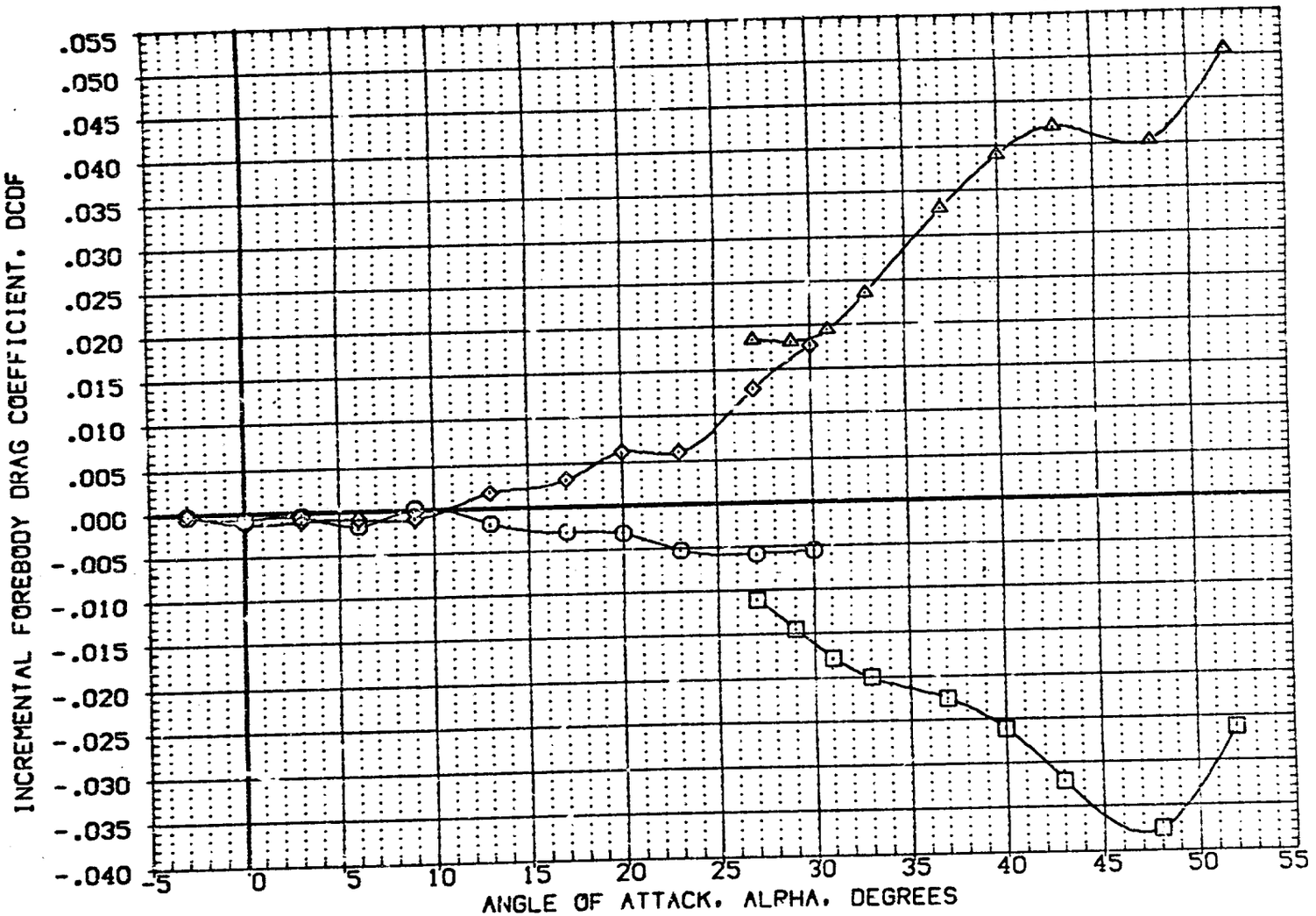


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(HBY002)	AMES 3.5-163 CA58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	AMES 3.5-163 CA58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 CA58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 CA58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1720	IN.
BREF	14.0000	IN.
XMRP	12.0270	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

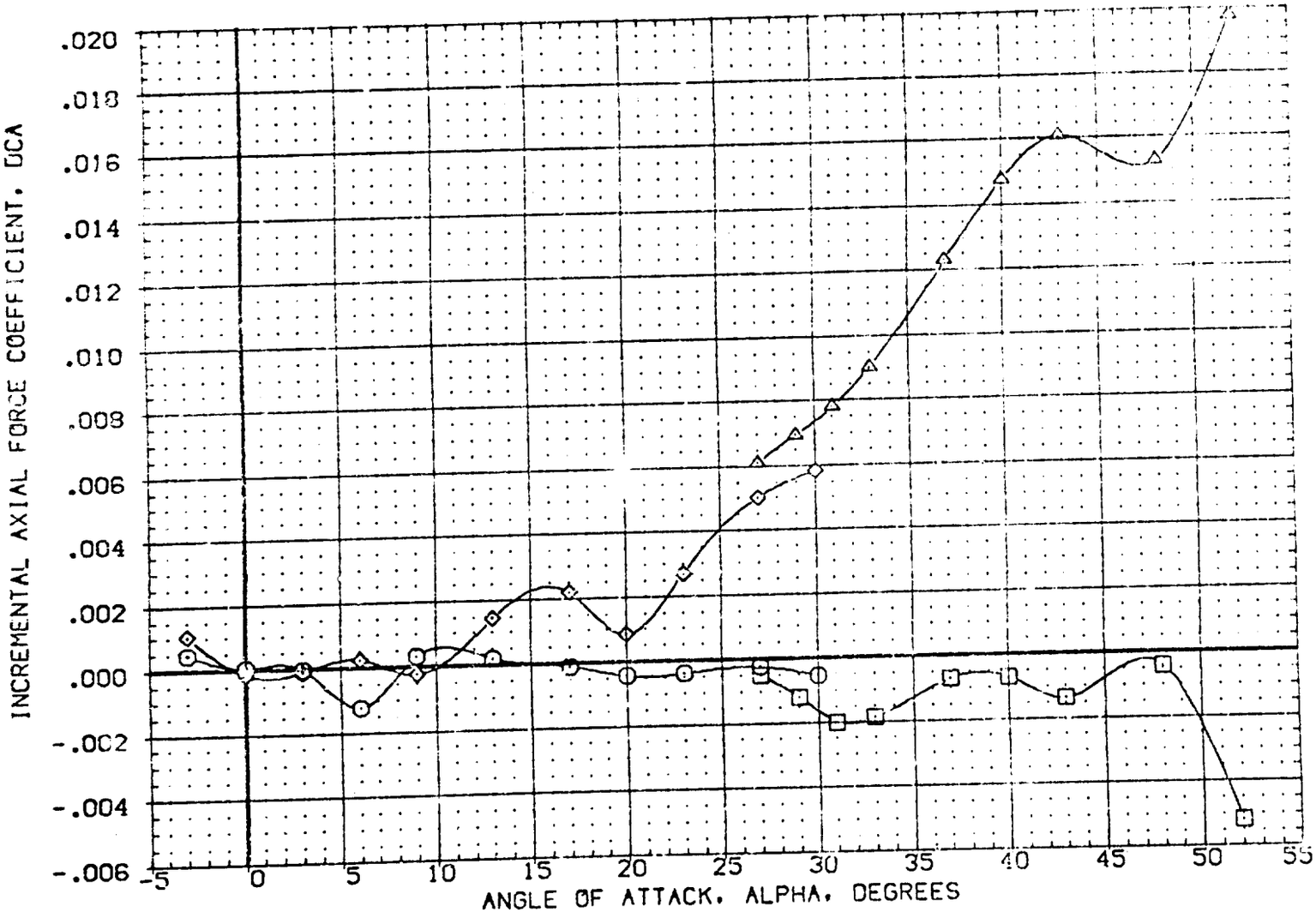


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(HBY002)	○	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	□	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	△	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1210	IN.
BREF	14.0500	IN.
XMRP	12.5710	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

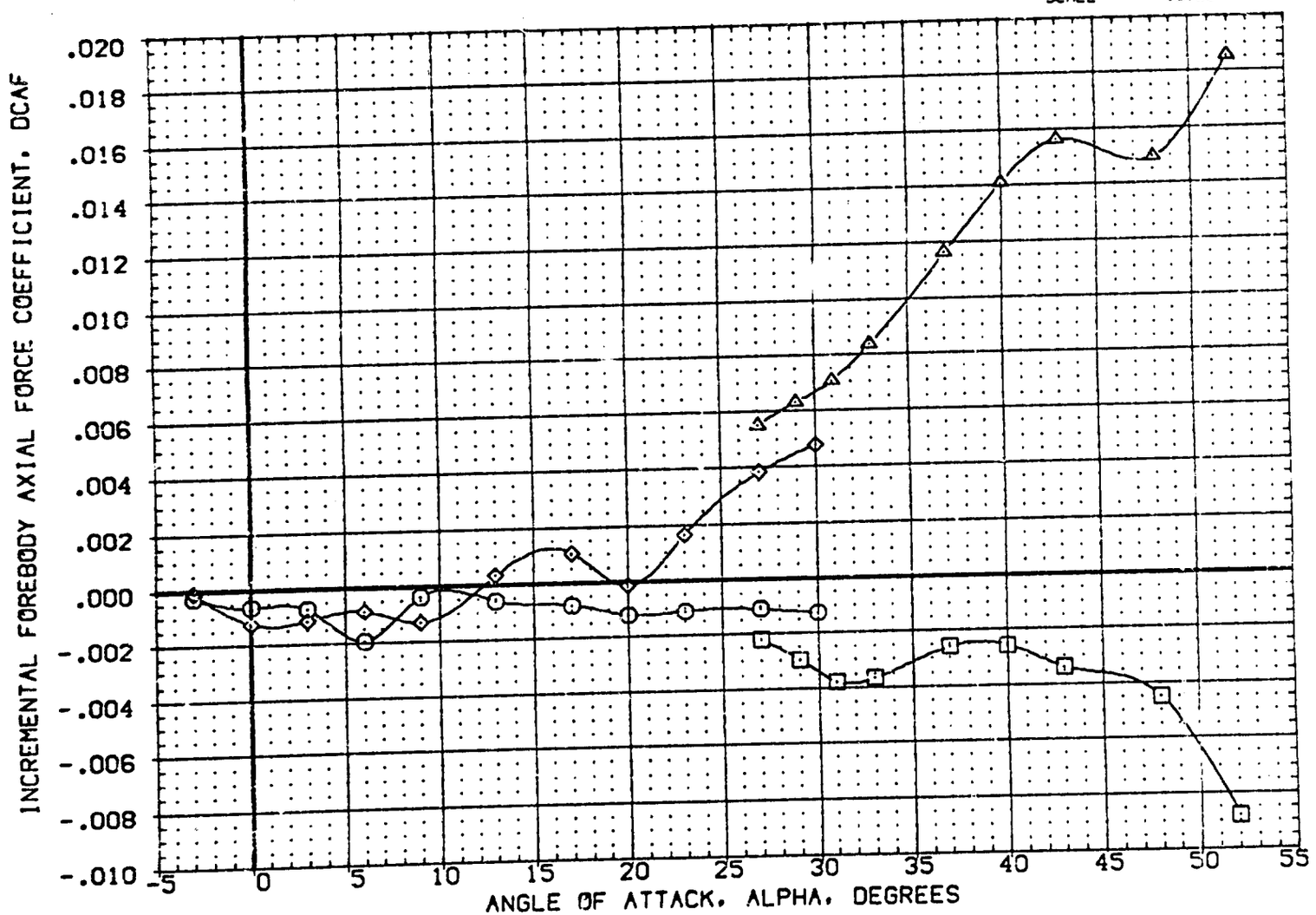


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(HBY002)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 OA58 (B19C7M4F5)(V107F23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0000	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

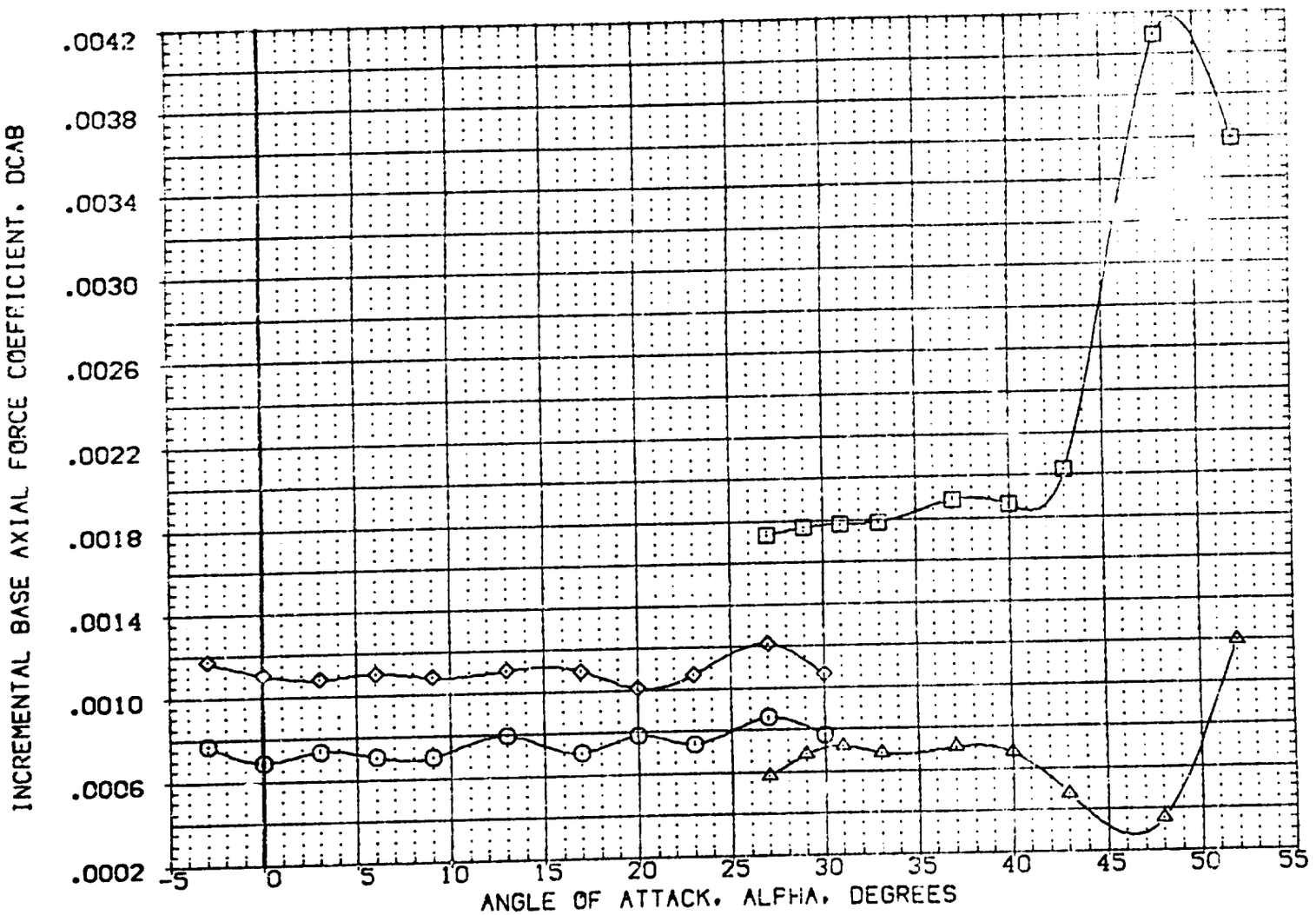


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

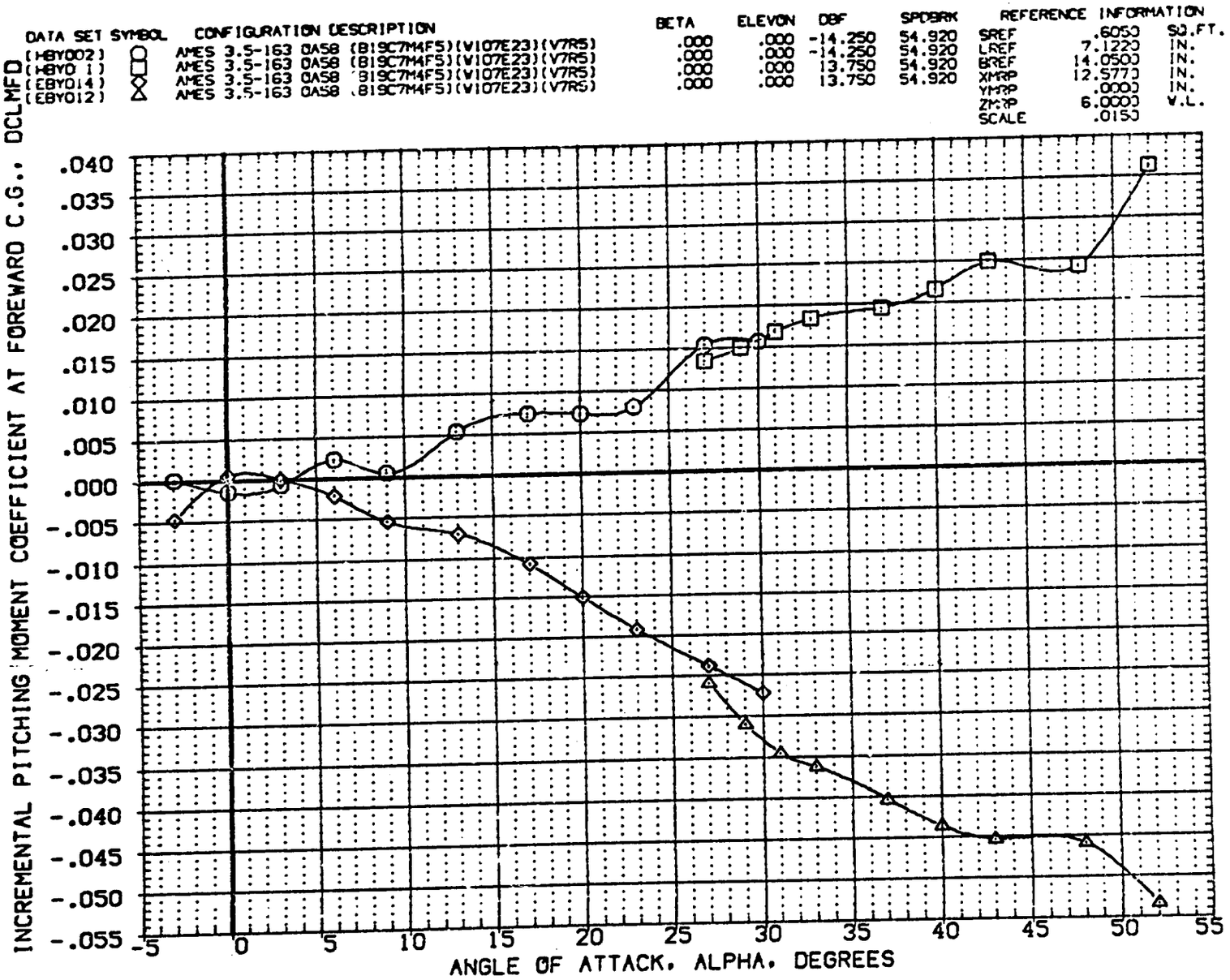


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(HBY002)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(HBY001)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY014)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920
(EBY012)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

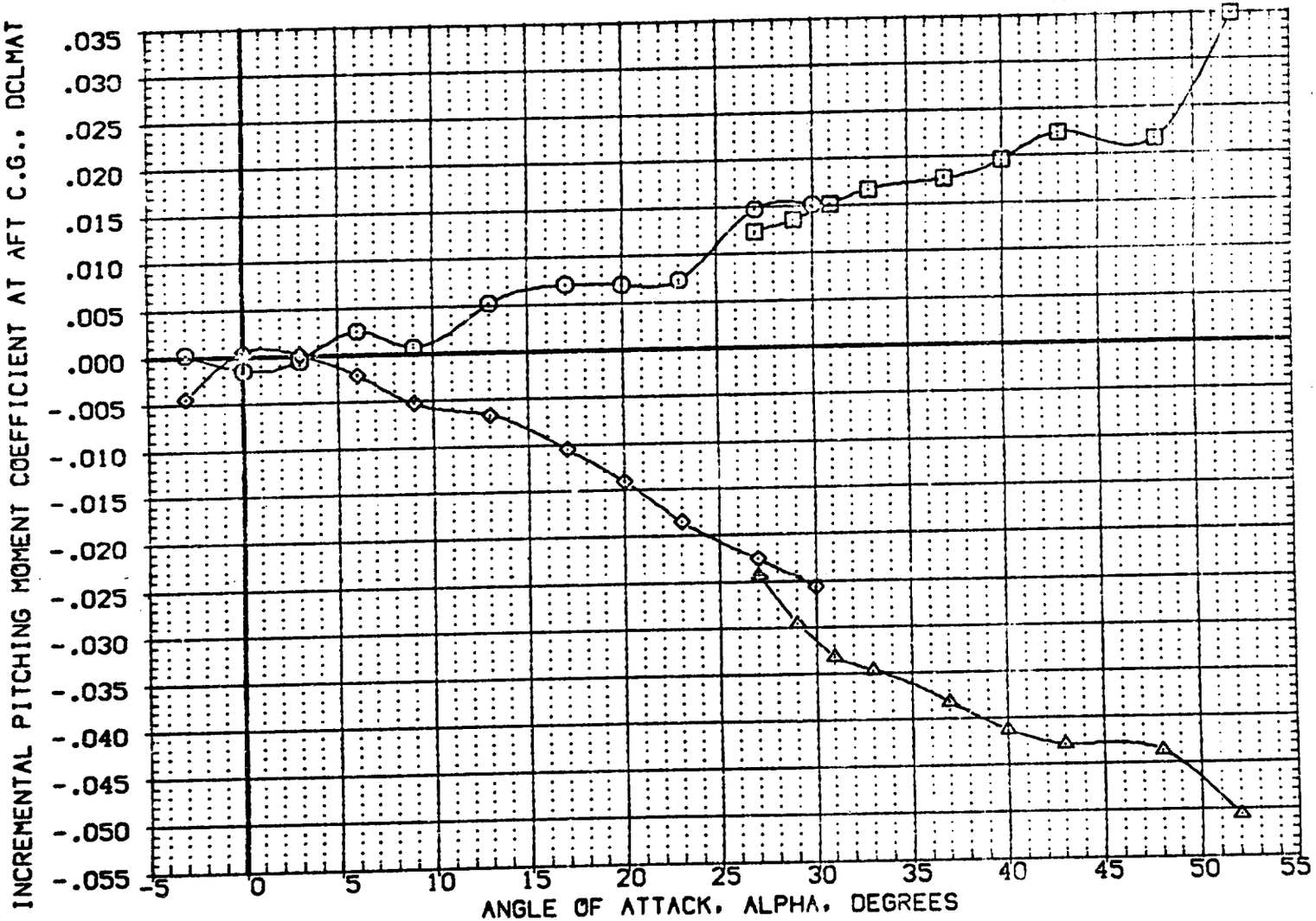


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

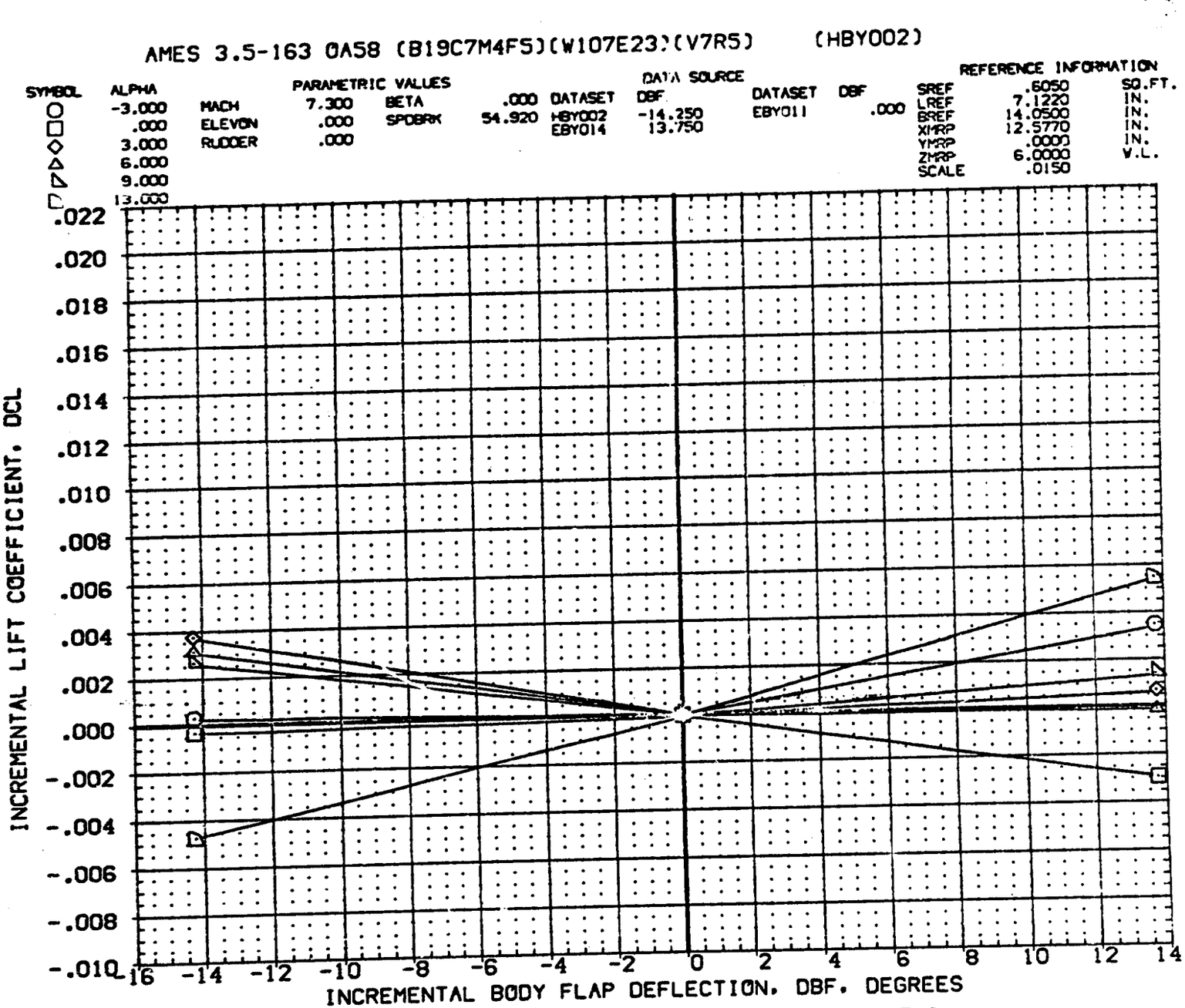


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (HBY002)

SYMBOL	ALPHA
○	17.000
□	20.000
◇	23.000
△	27.000
▽	30.000

PARAMETRIC VALUES

MACH	7.300	BETA	.000
ELEVON	.000	SPDBRK	54.920
RUDDER	.000		

DATA SOURCE

DATASET	DBF	DATASET	DBF	DATASET	DBF
HBYC02	-14.250	EBY011	.000		
EBY014	13.750				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

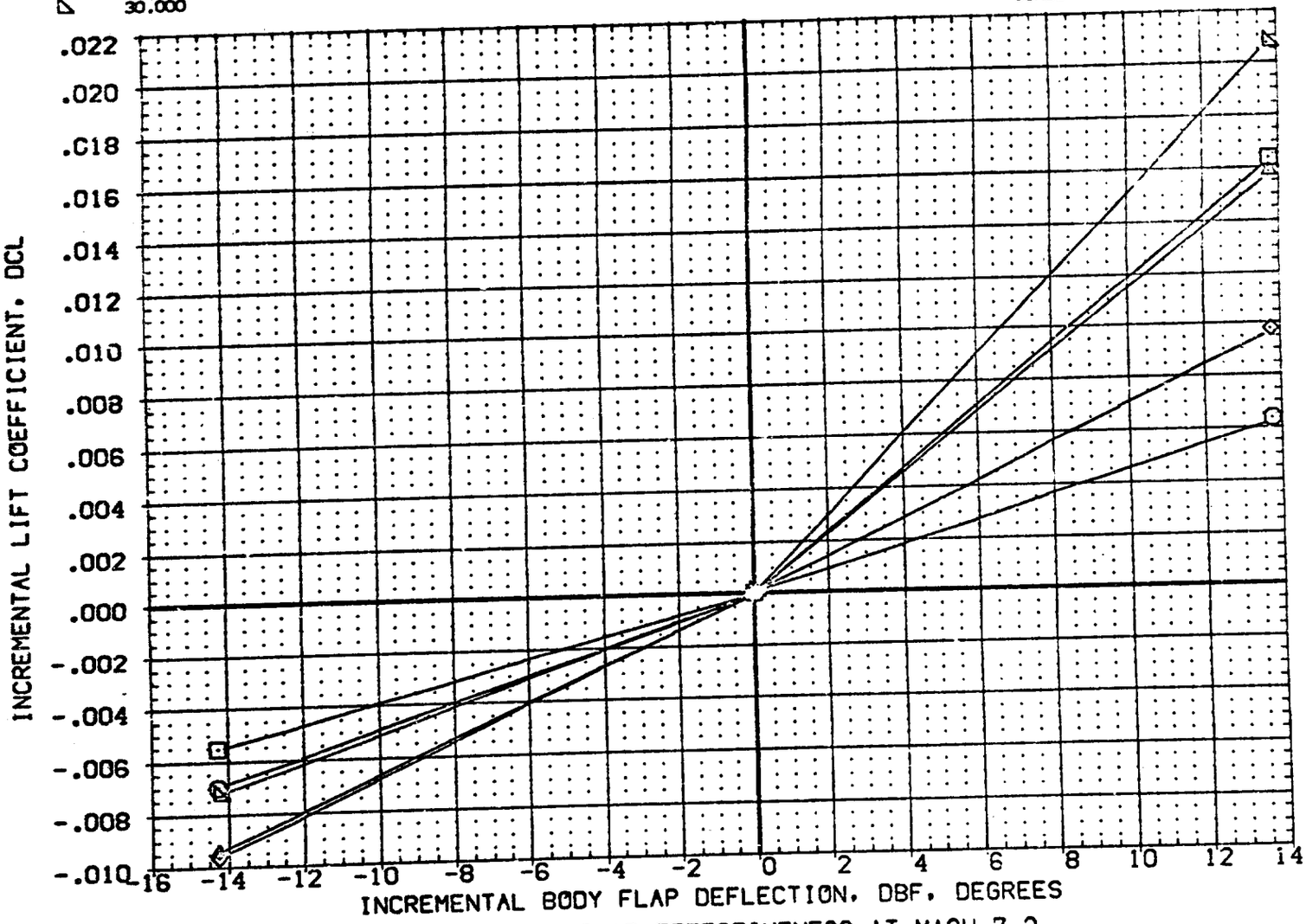


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

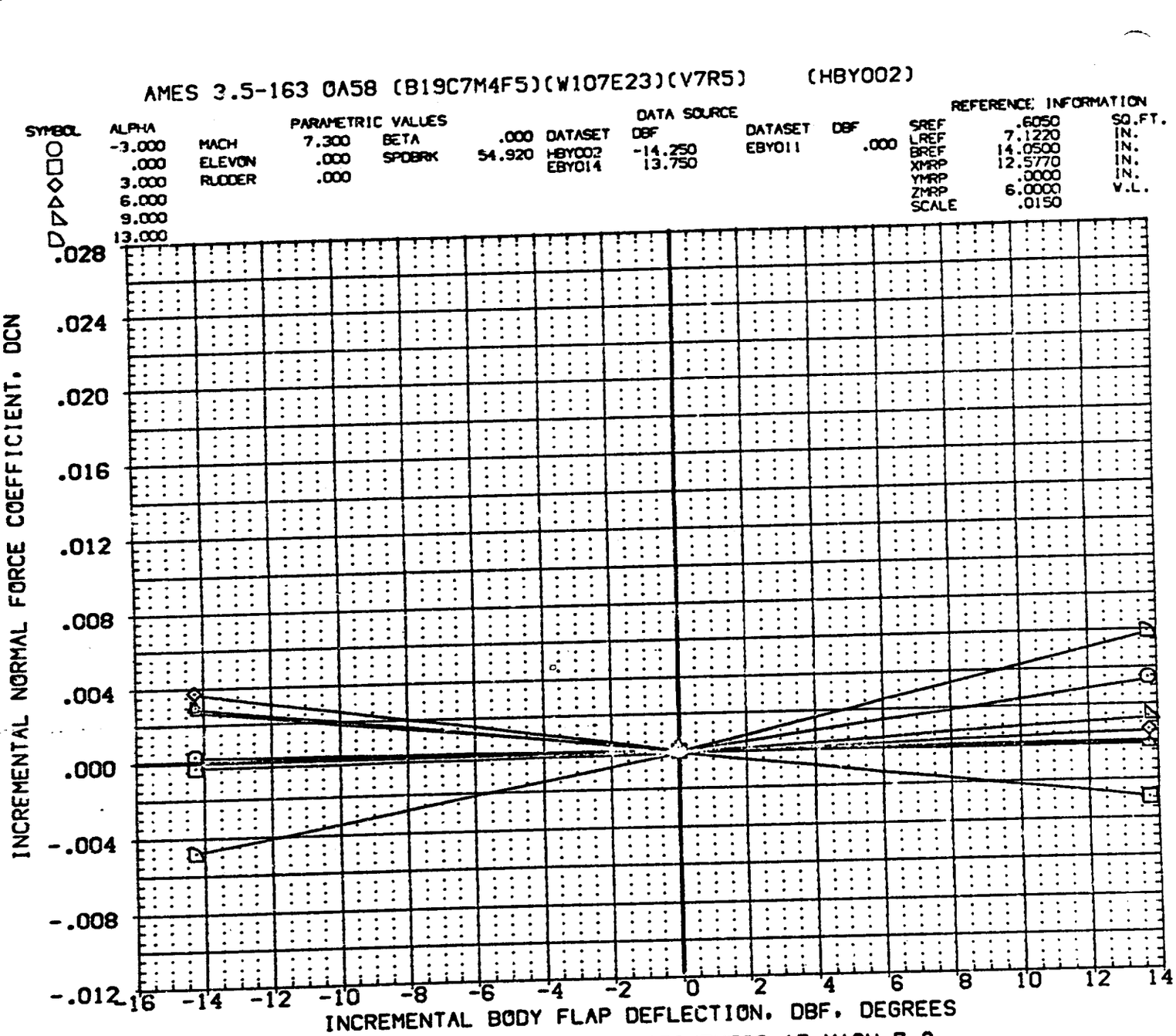


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (HBY002)

SYMBOL	ALPHA
○	17.000
□	20.000
◇	23.000
△	27.000
▽	30.000

PARAMETRIC VALUES

MACH	7.300	BETA	.000	DATASET	DBF
ELEVON	.000	SPDBRK	54.920	HBY002	-14.250
RUDDER	.000			EBY014	13.750

DATA SOURCE

DATASET	DBF
EBY011	.000

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

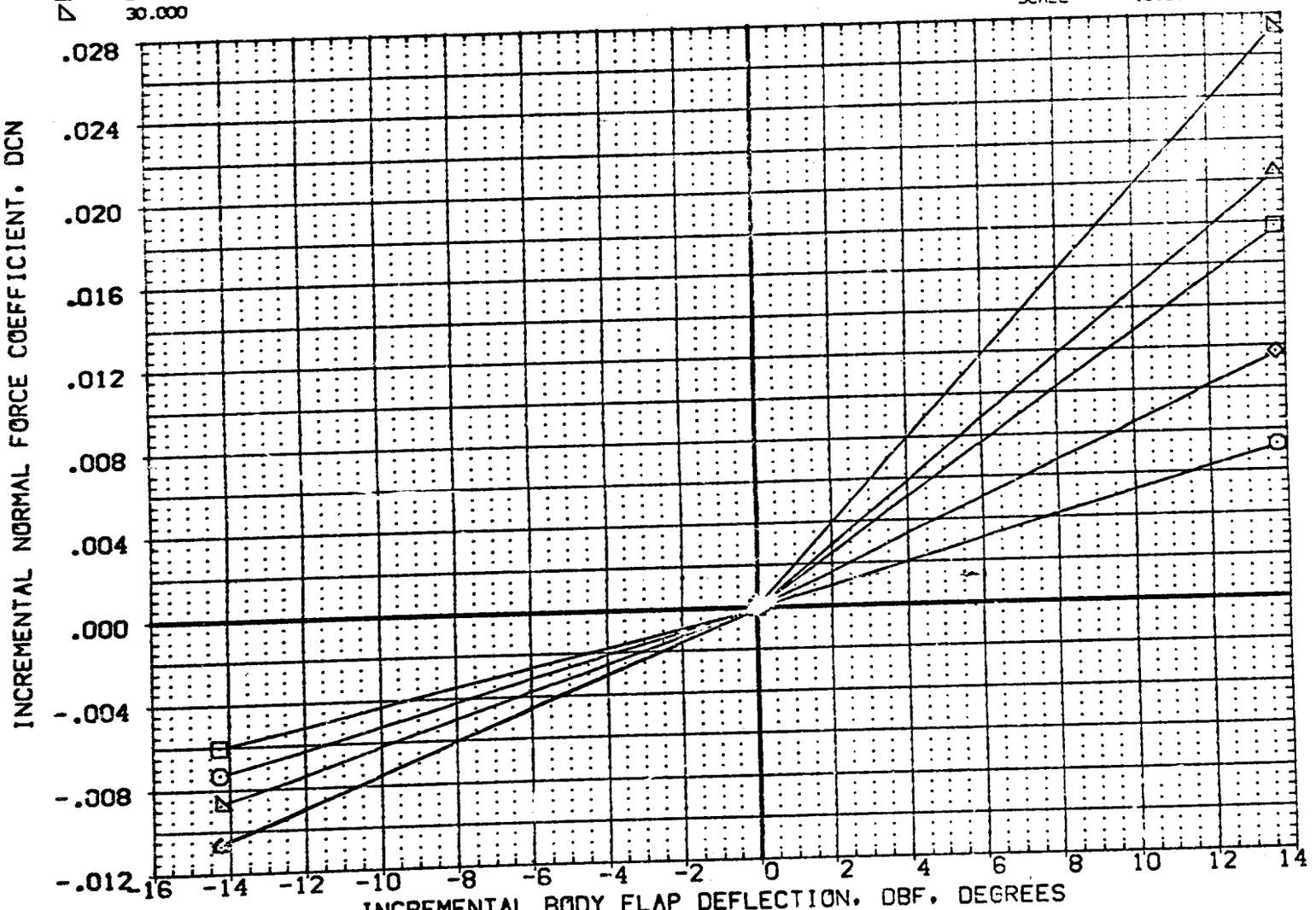


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

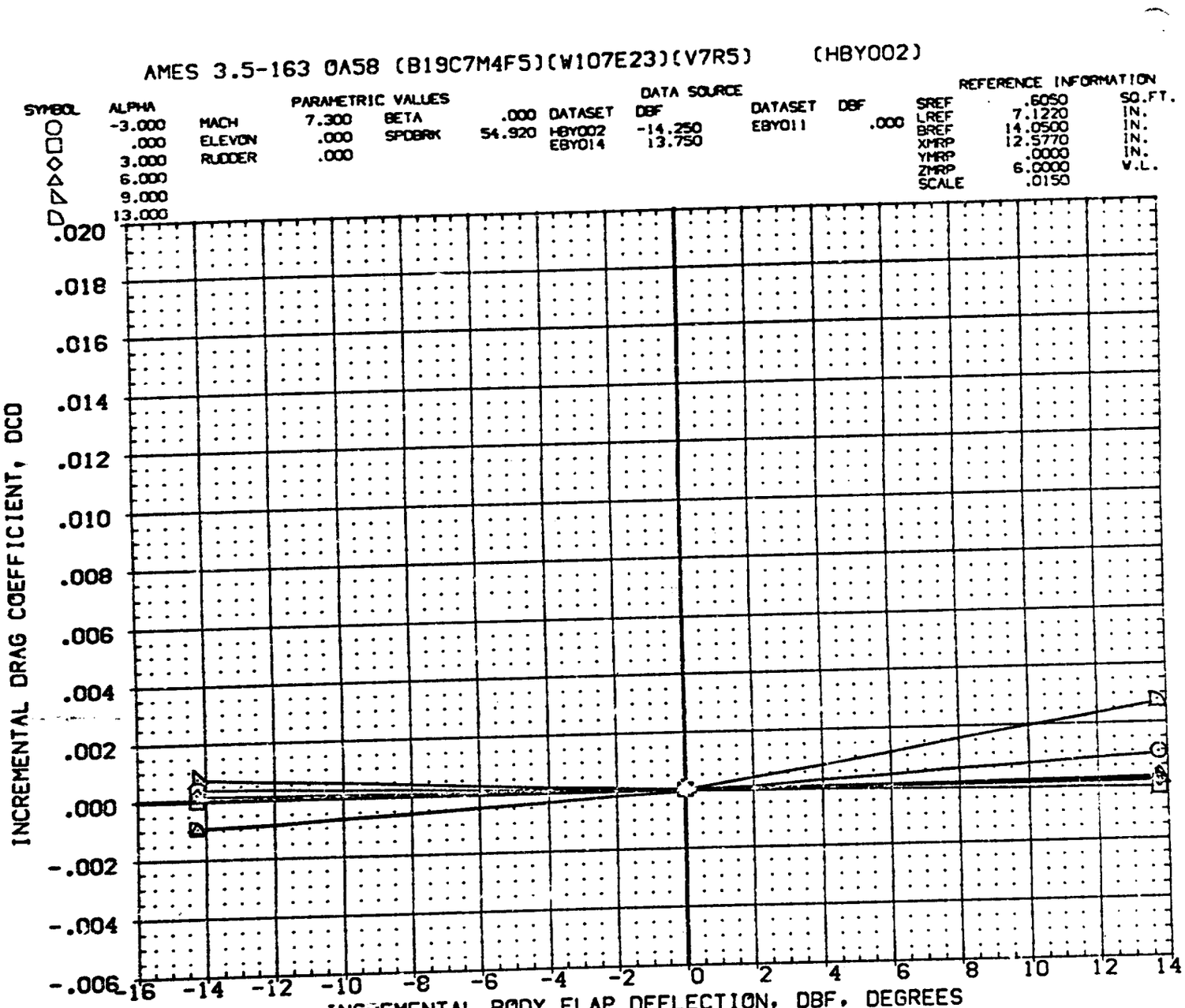


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(WI07E23)(V7R5) (HBY002)

SYMBOL	ALPHA
○	17.000
□	20.000
◇	23.000
△	27.000
▷	30.000

PARAMETRIC VALUES

MACH	7.300	BETA	.000
ELEVON	.000	SPDBRK	54.920
RUDDER	.000		

DATA SOURCE

DATASET	DBF		DATASET	DBF	
HBY002	-14.250		EBY011	.000	
EBY014	13.750				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

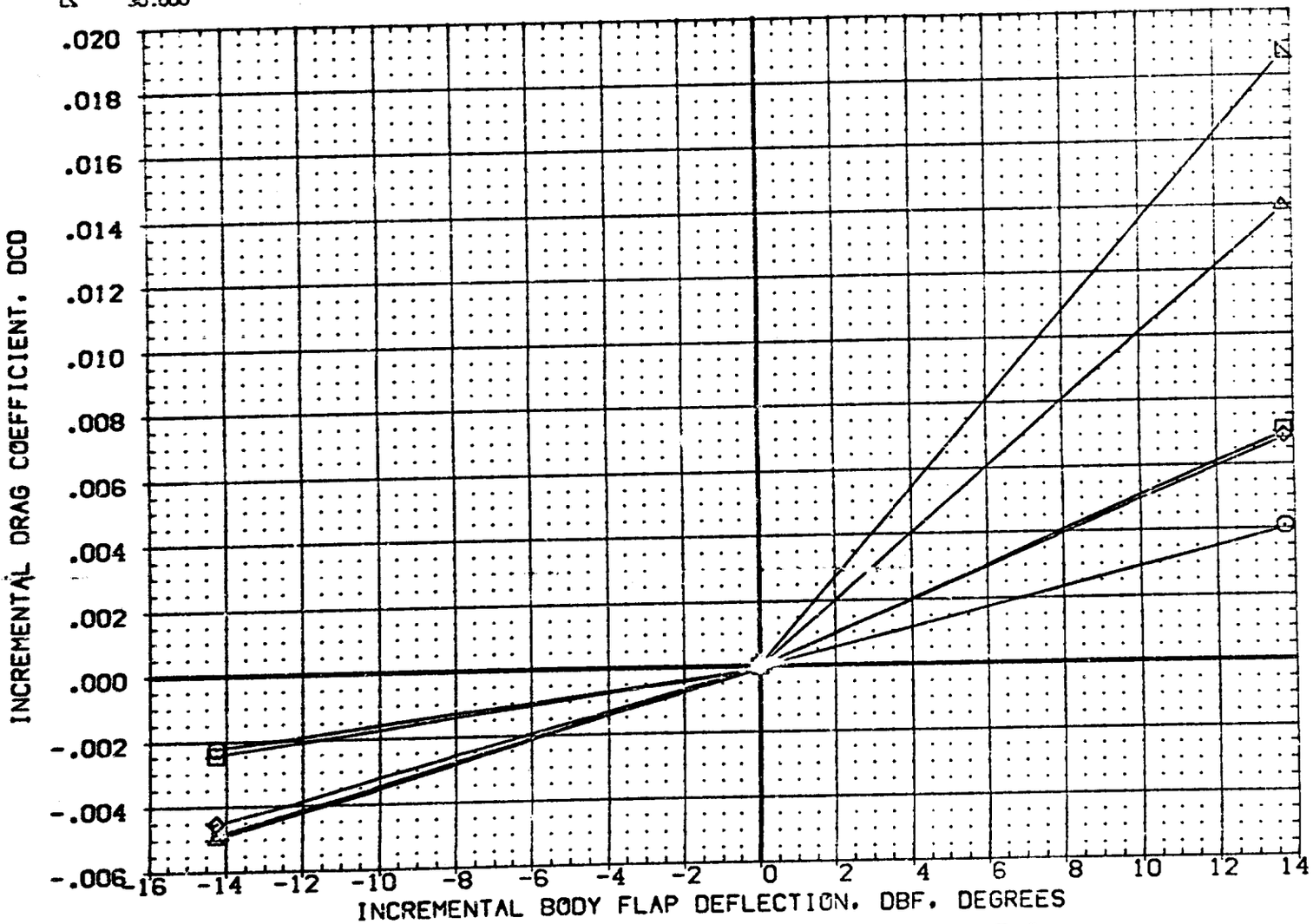


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

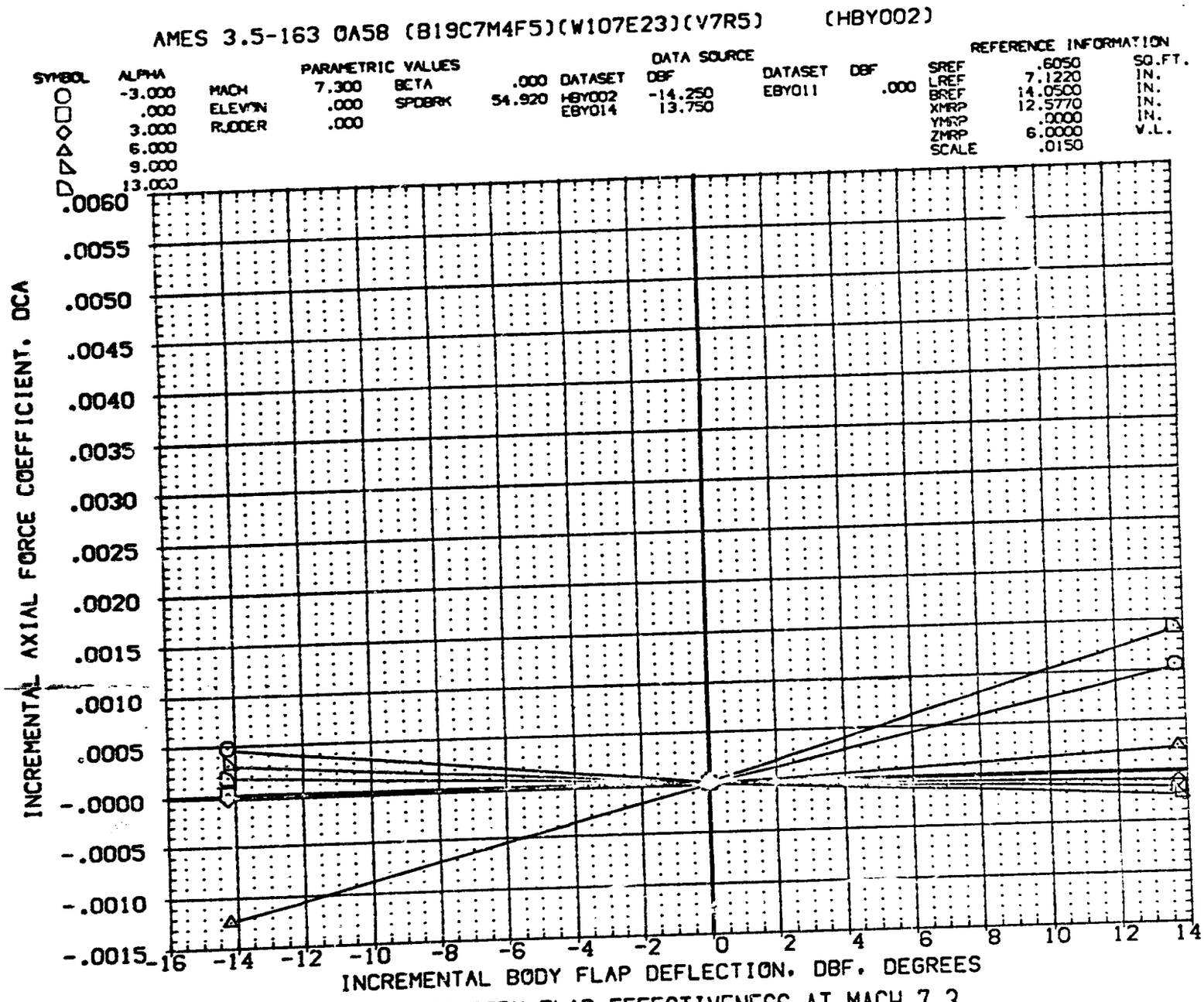


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (HBY002)

SYMBOL	ALPHA
□	17.000
○	20.000
◇	23.000
△	27.000
▽	30.000

PARAMETRIC VALUES

MACH	7.300	BETA	.000	
ELEVON	.000	SPDBRK	54.920	
RUDDER	.000			

DATA SOURCE

DATASET	DBF	DATASET	DBF	DATASET	DBF
HBY002	-14.250	EBY011	.000		
EBY014	13.750				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BOCF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

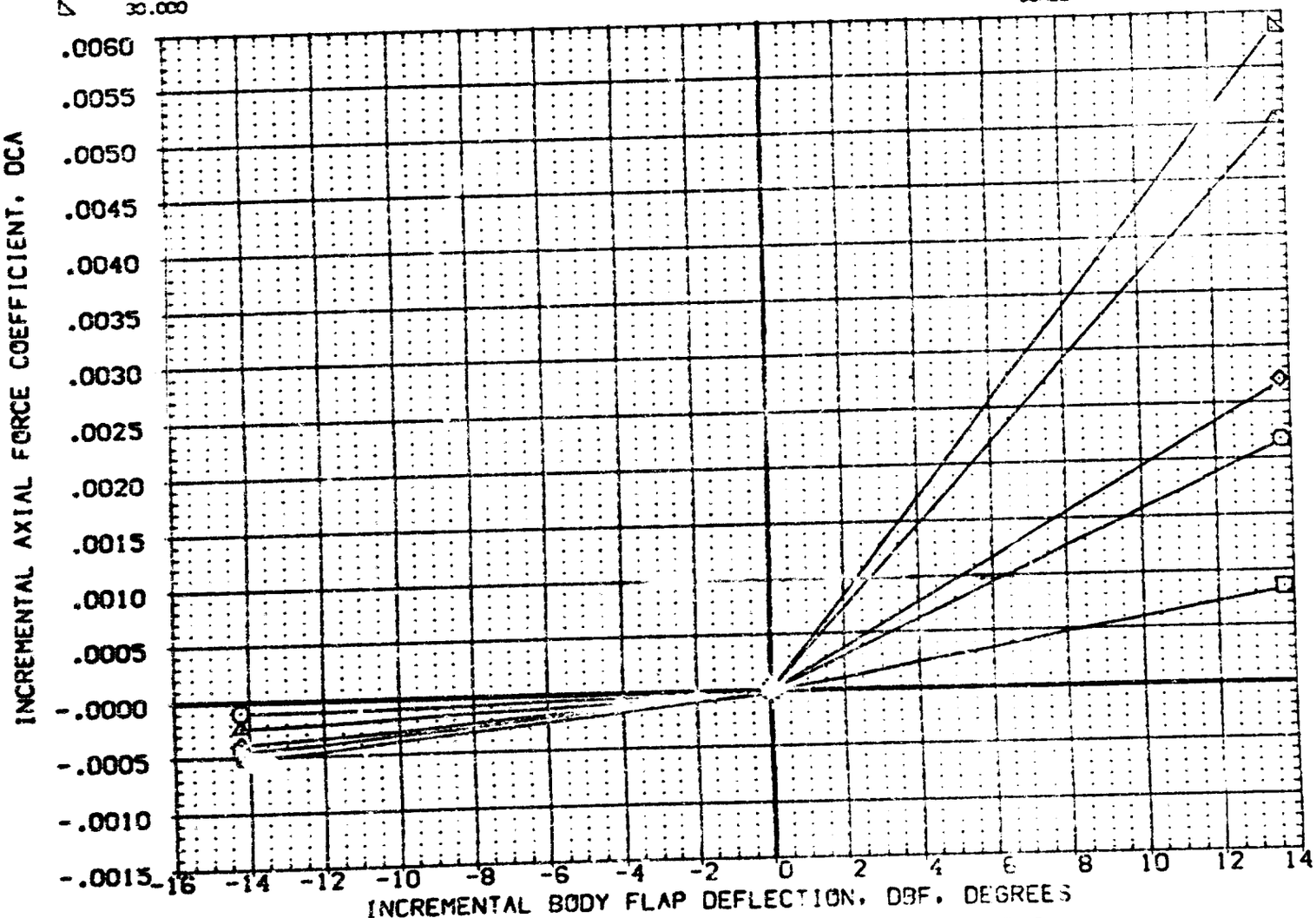


FIG. 7 CONFIGURATION -1398 BODY FLAP EFFECTIVENESS AT MACH 7.3

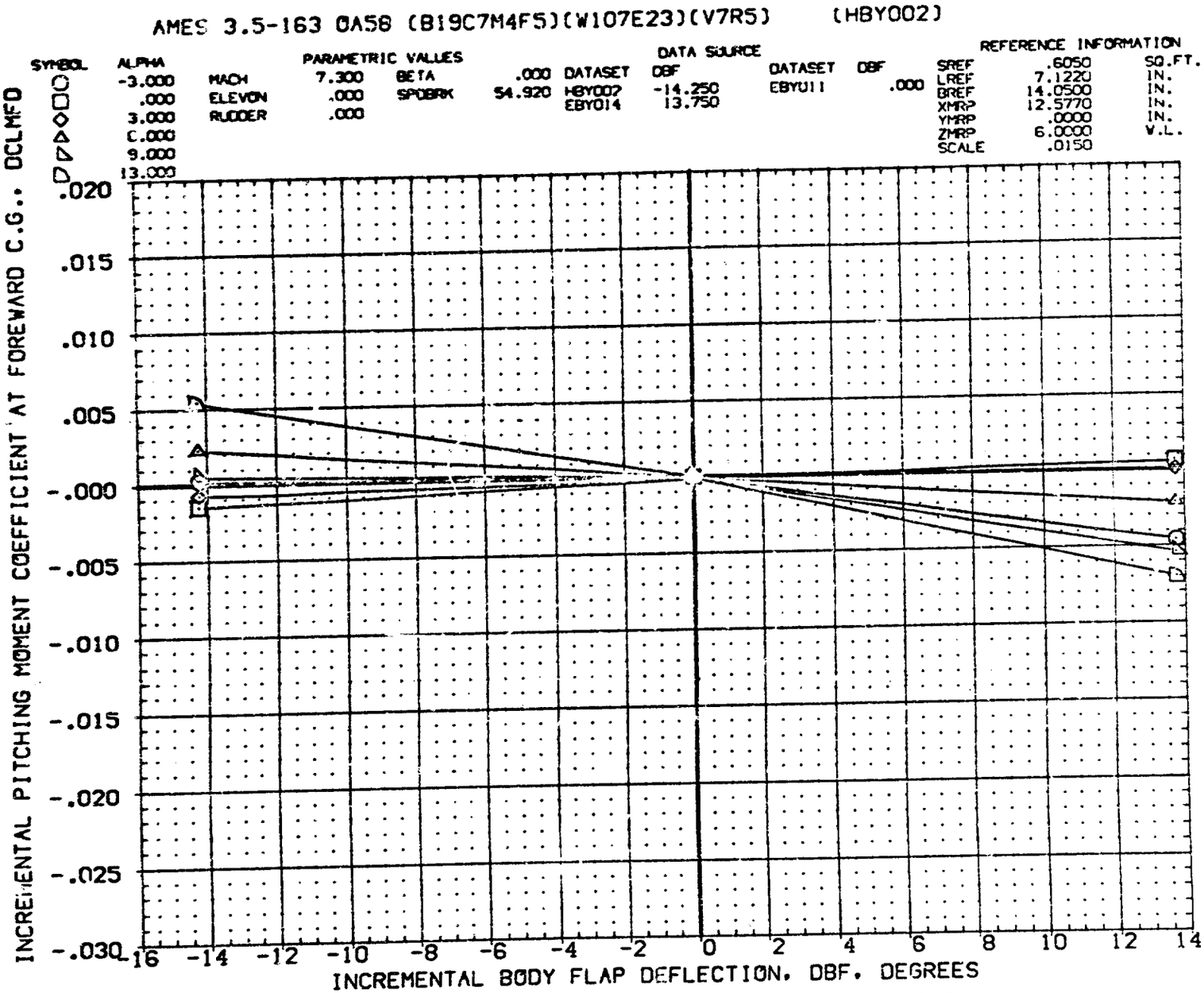


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

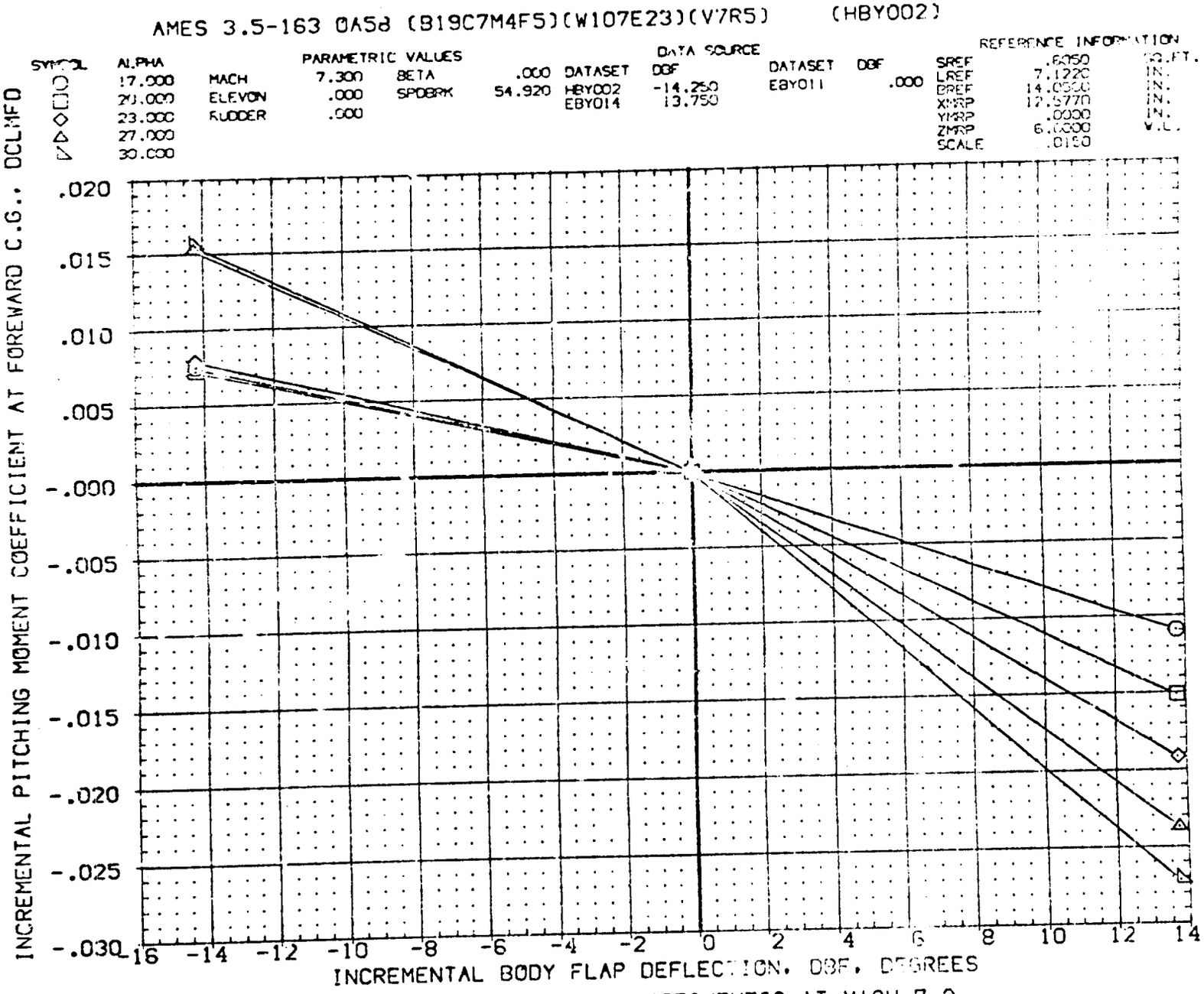


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

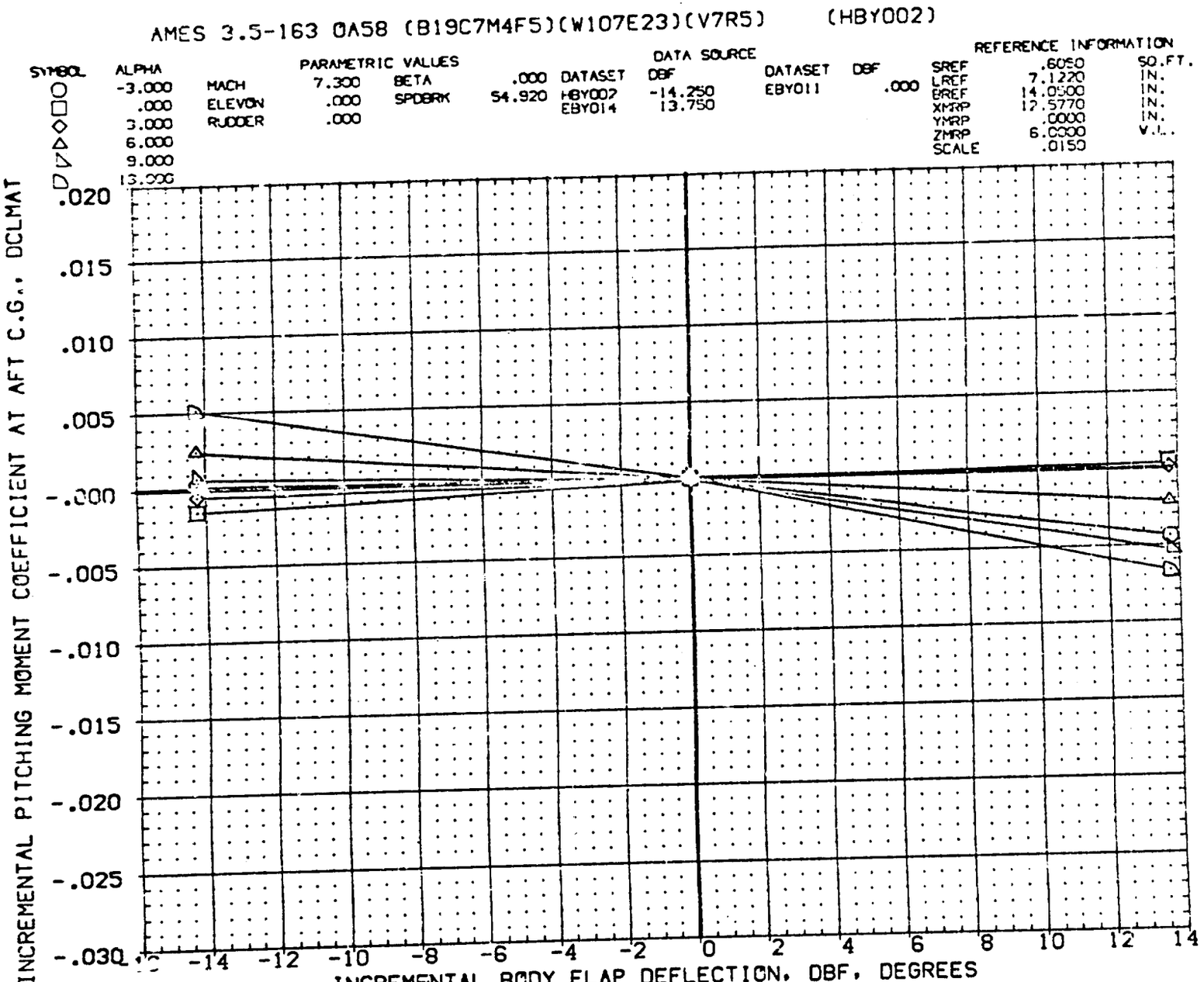


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

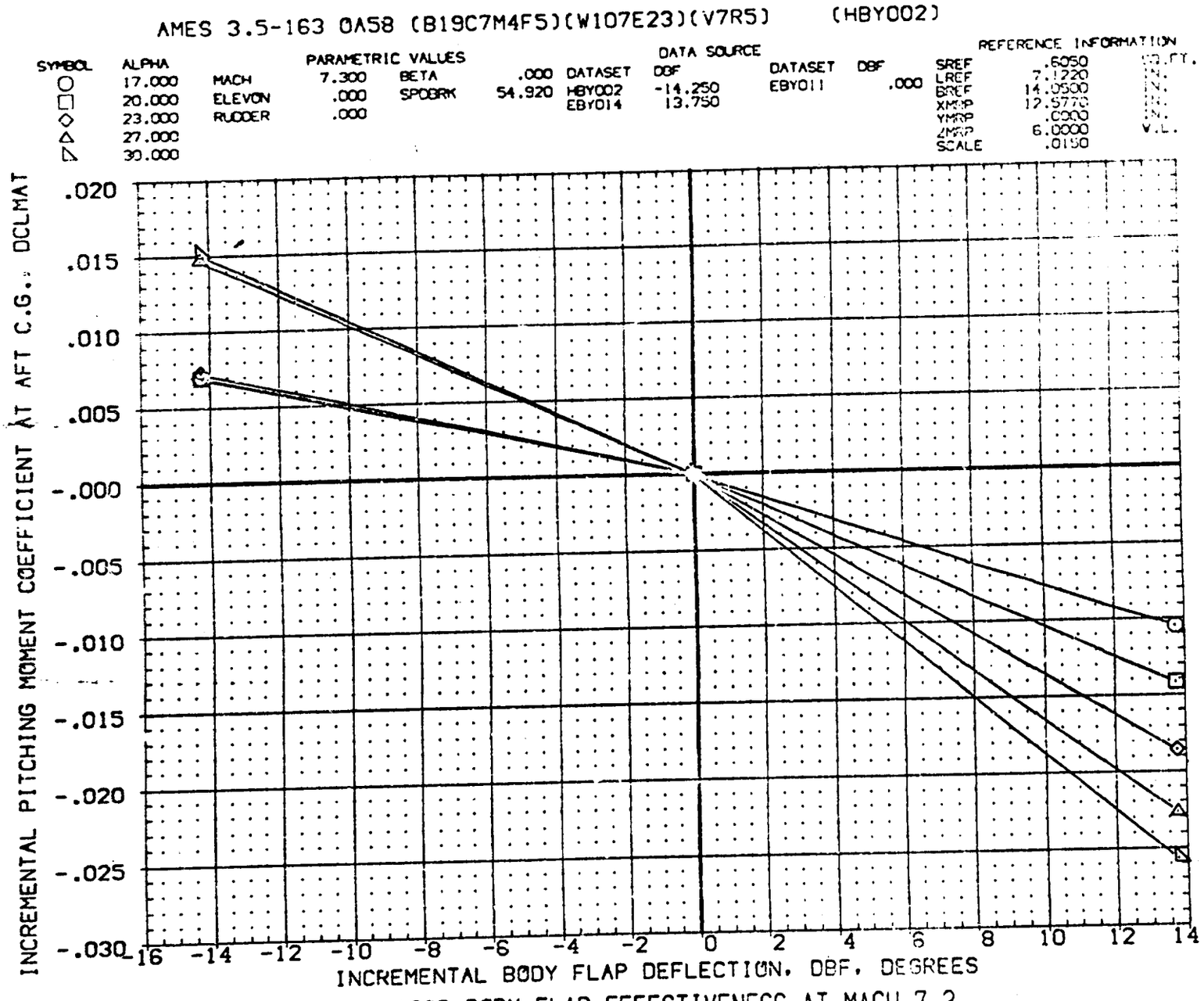


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

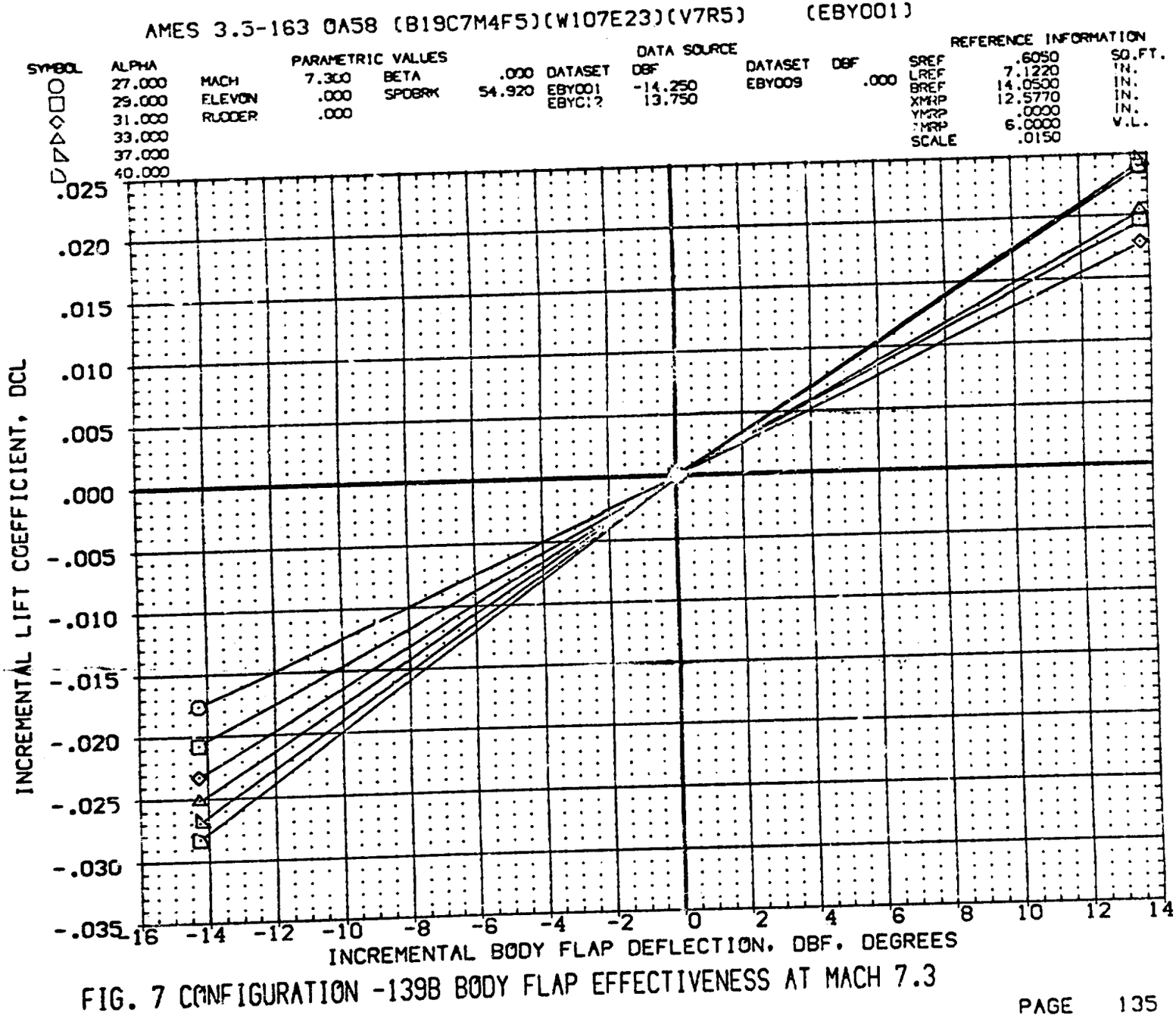


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

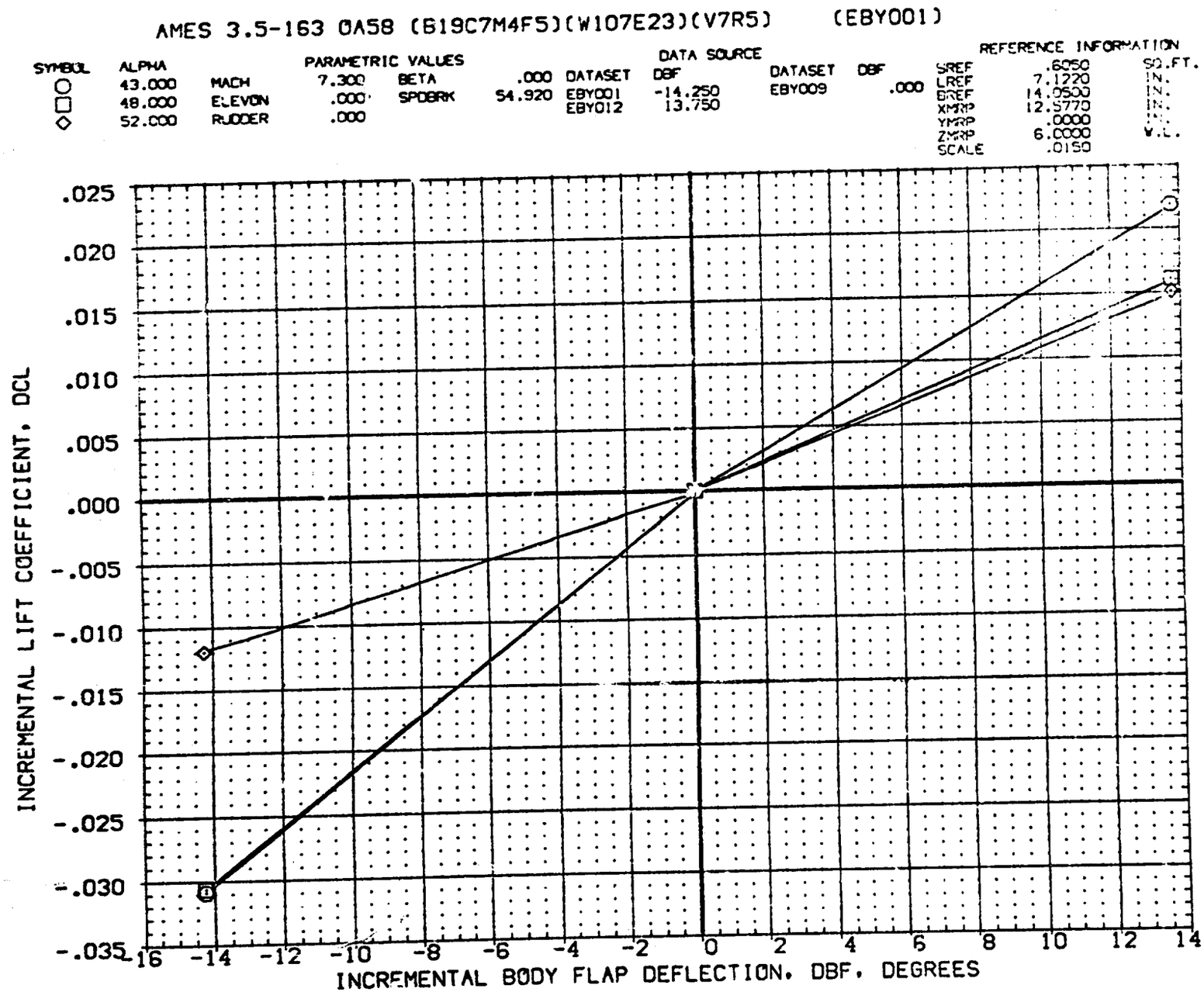


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

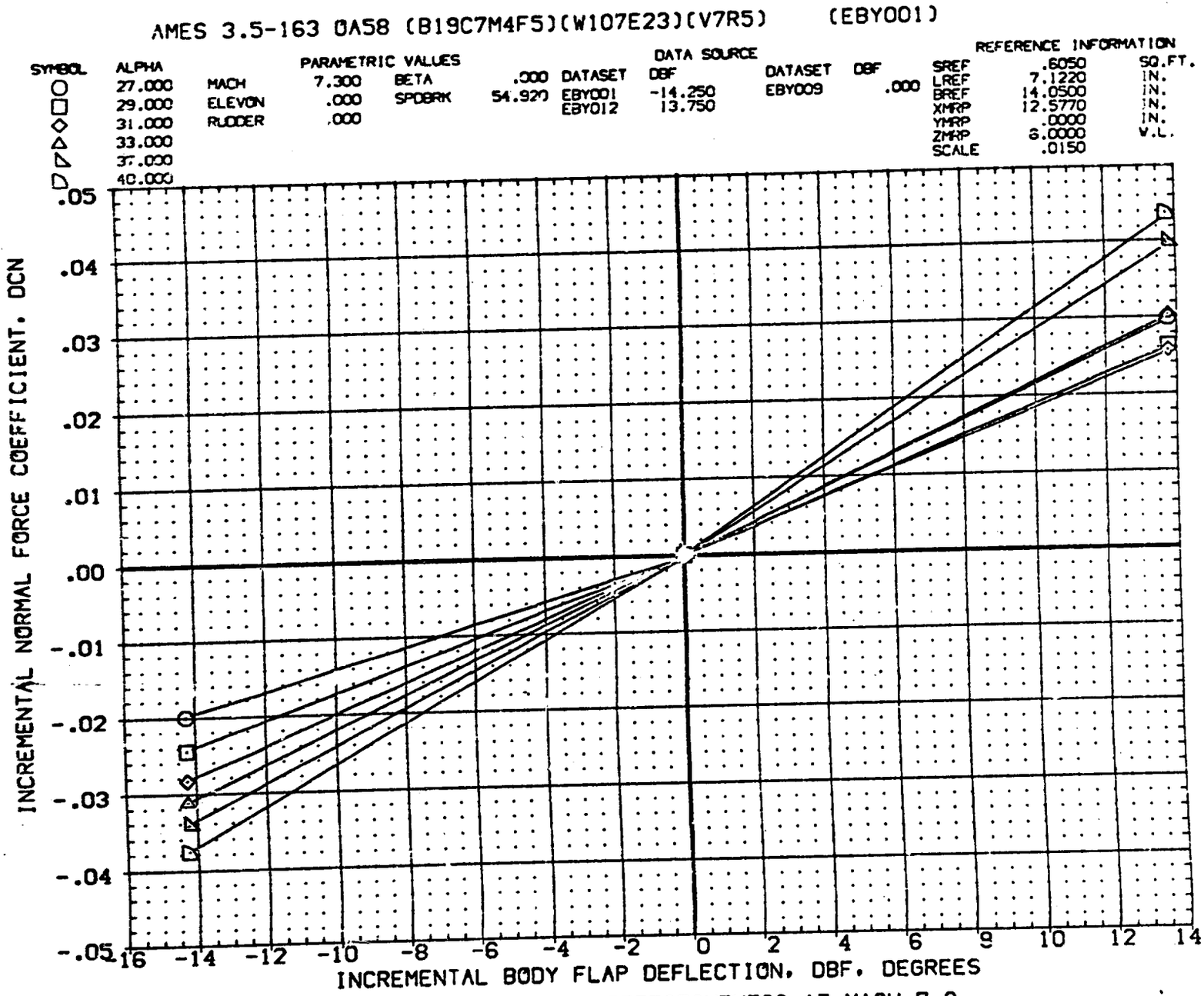


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

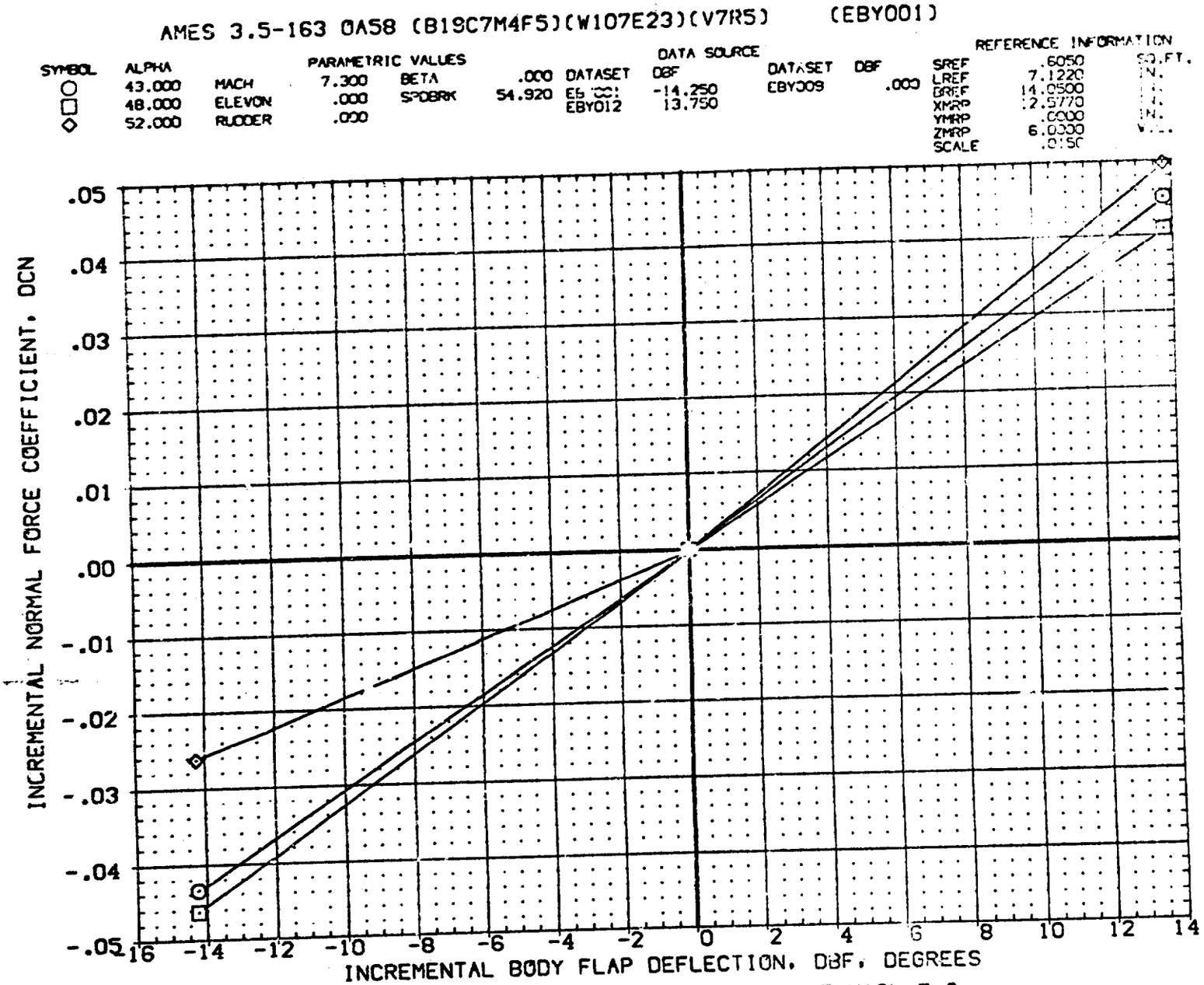


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

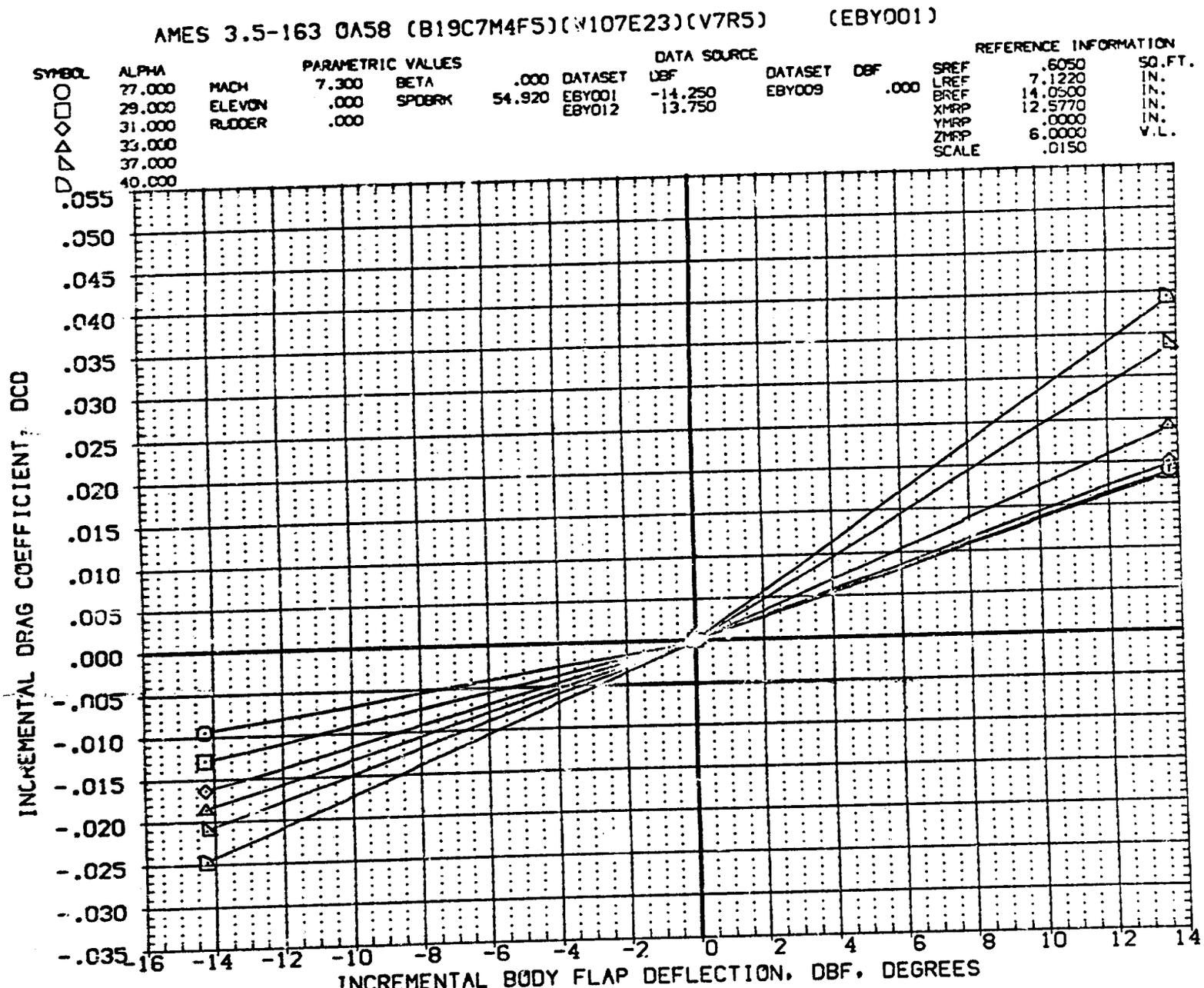


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY001)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	7.300	BETA	.000	DATASET	DBF	DATASET	DBF	
□	47.000	ELEVON	.000	SPOBRK	54.920	EBY001	-14.250	EBY009	.000	
◇	52.000	RUDDER	.000			EBY012	13.750			

REFERENCE INFORMATION

		SQ.FT.
SREF	.5050	
LREF	7.1220	
BREF	14.0600	
XMRP	12.5770	
YMRP	.0000	
ZMRP	6.0000	
SCALE	.0150	

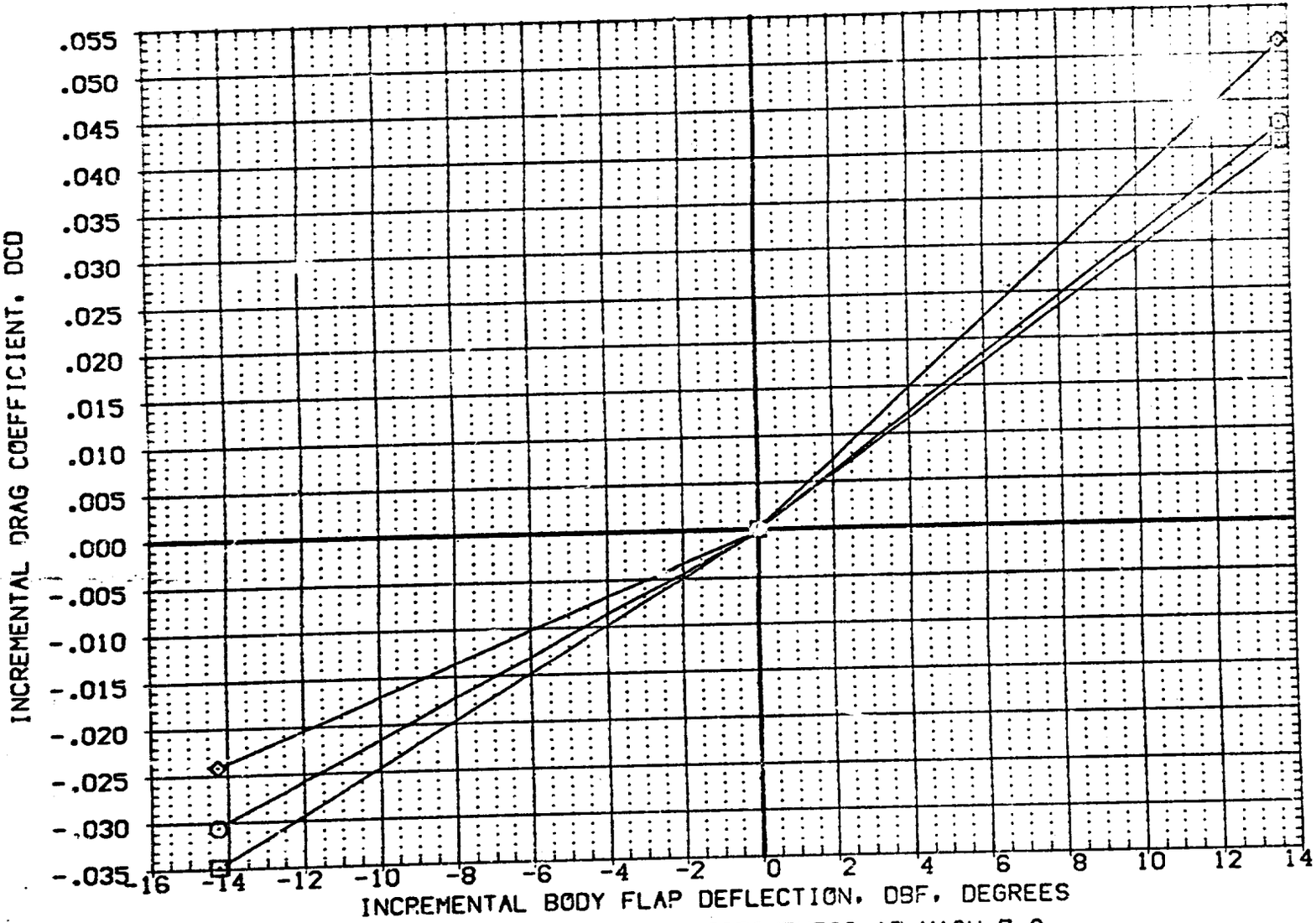


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

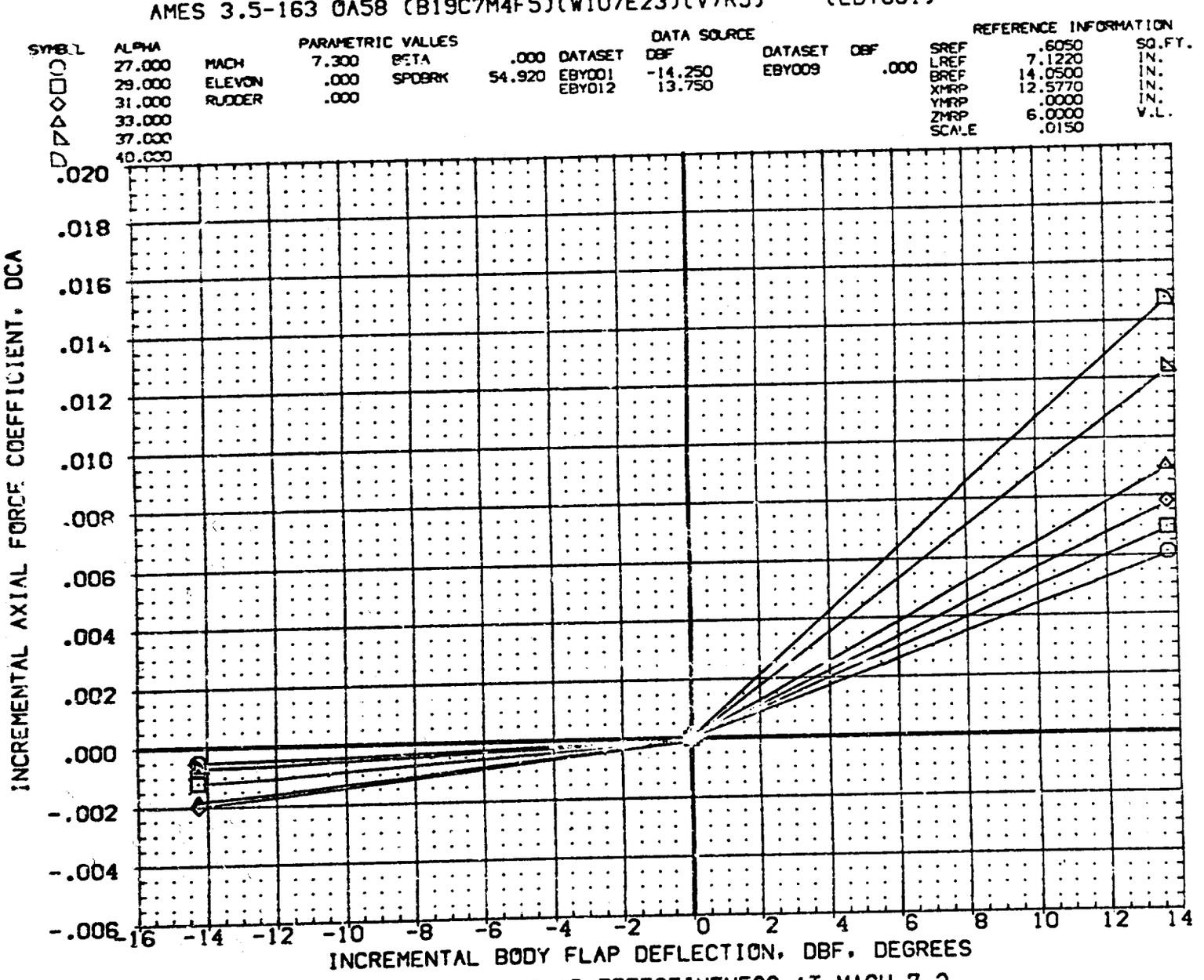


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W1 [illegible]23)(V7R5) (EBY001)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	7.300	BETA	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	48.000	ELEVON	.000	SPDBRK	54.920	EBY001	-14.250	EBY009	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			EBY012	13.750			DREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

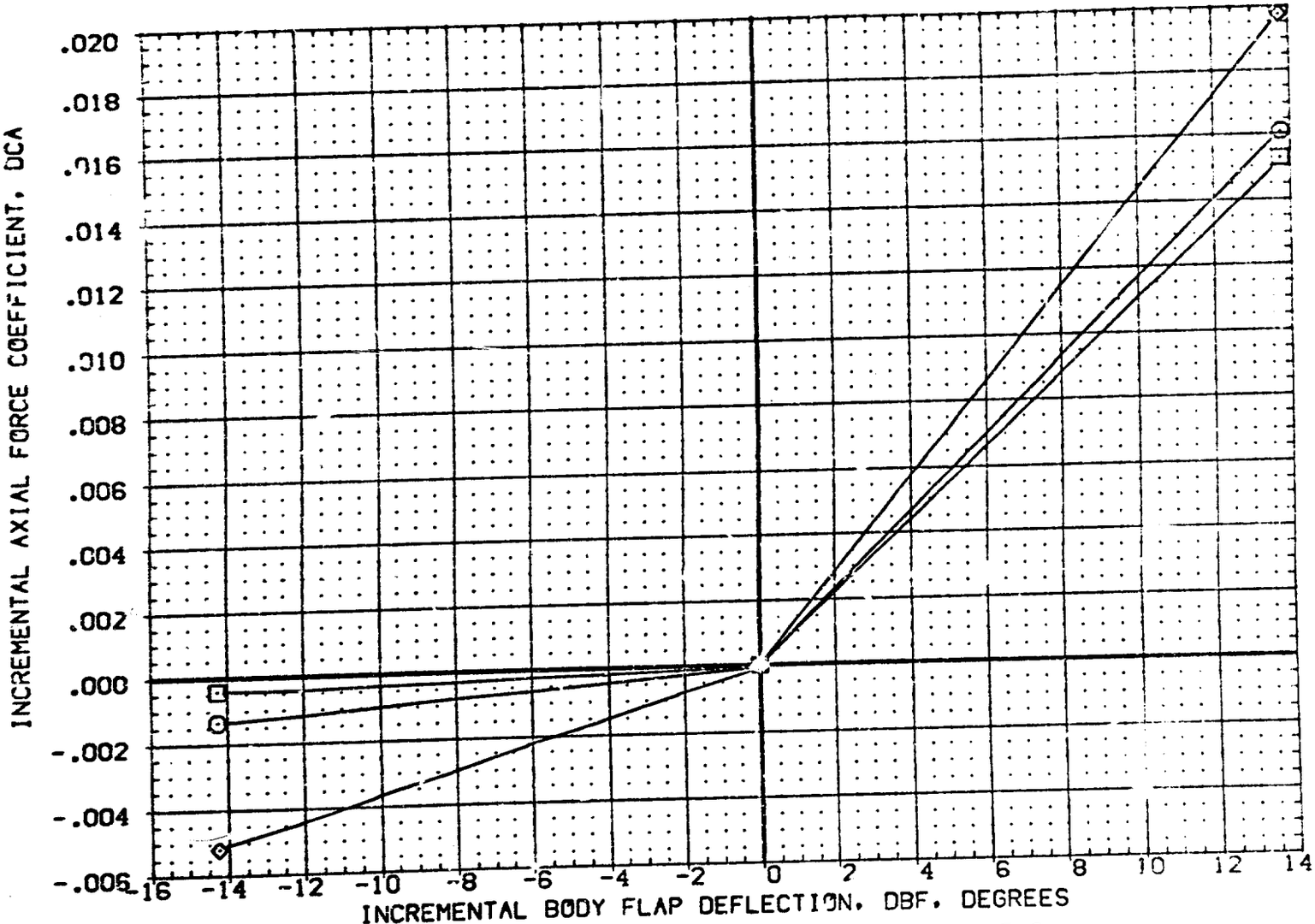


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

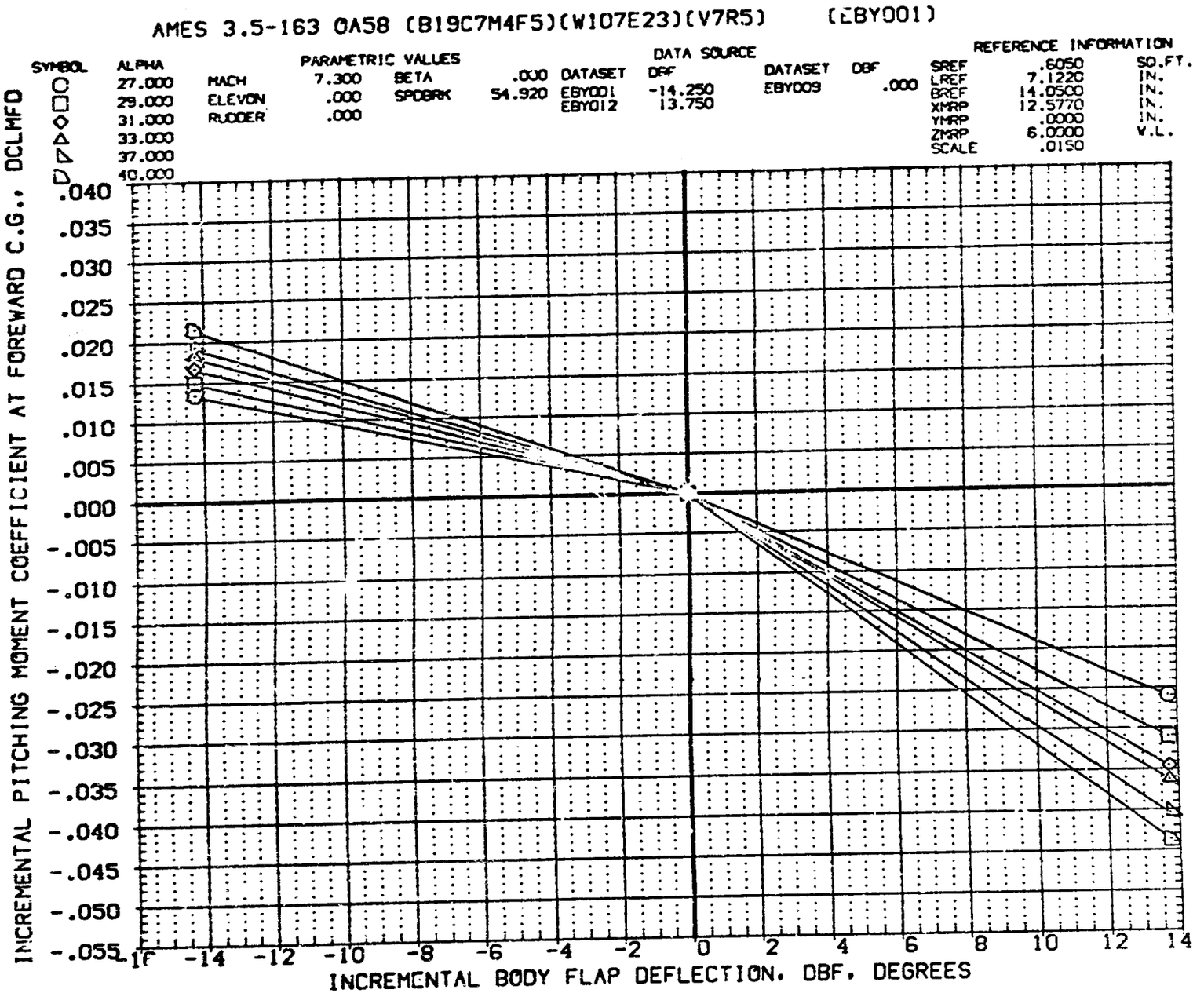


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

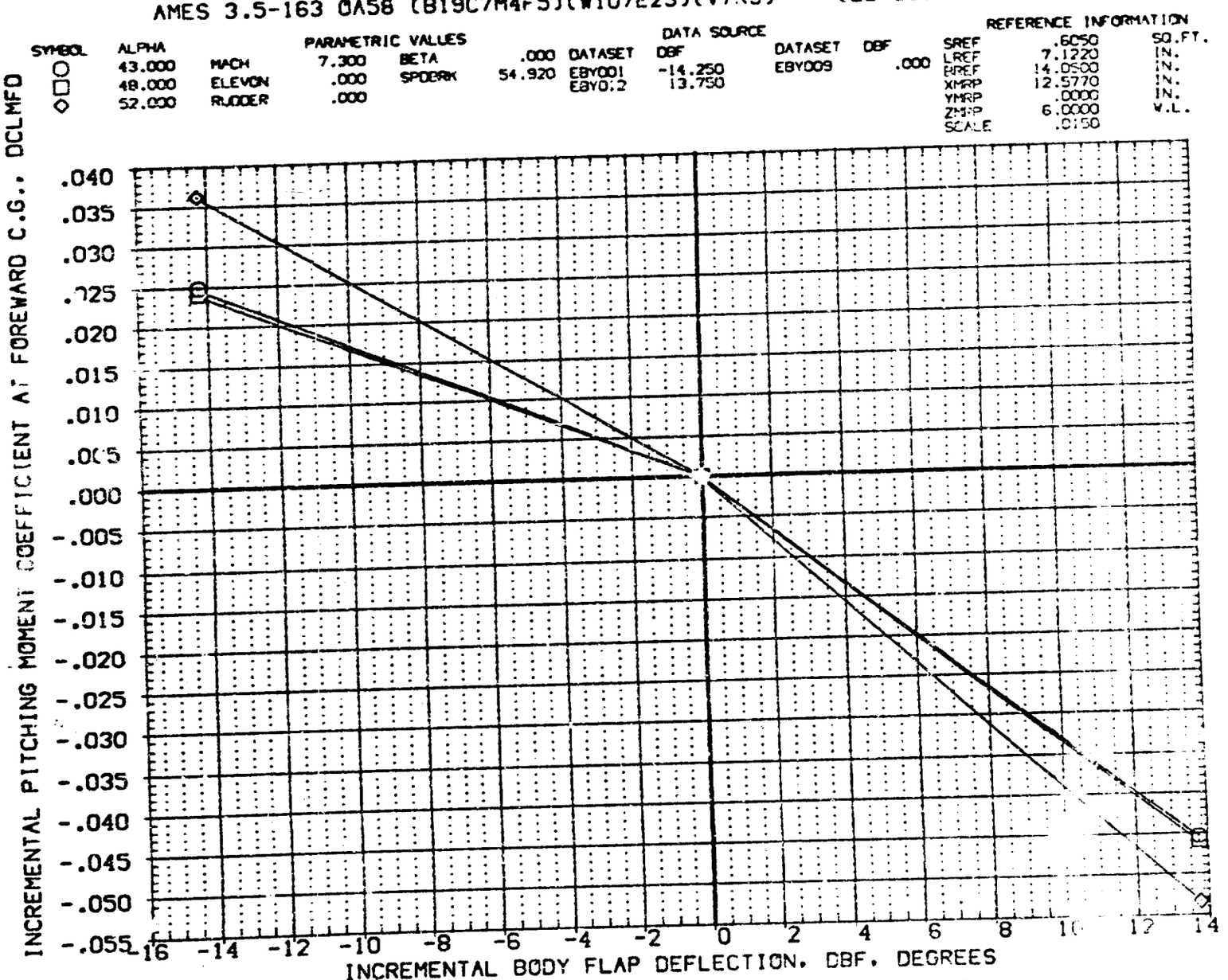


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

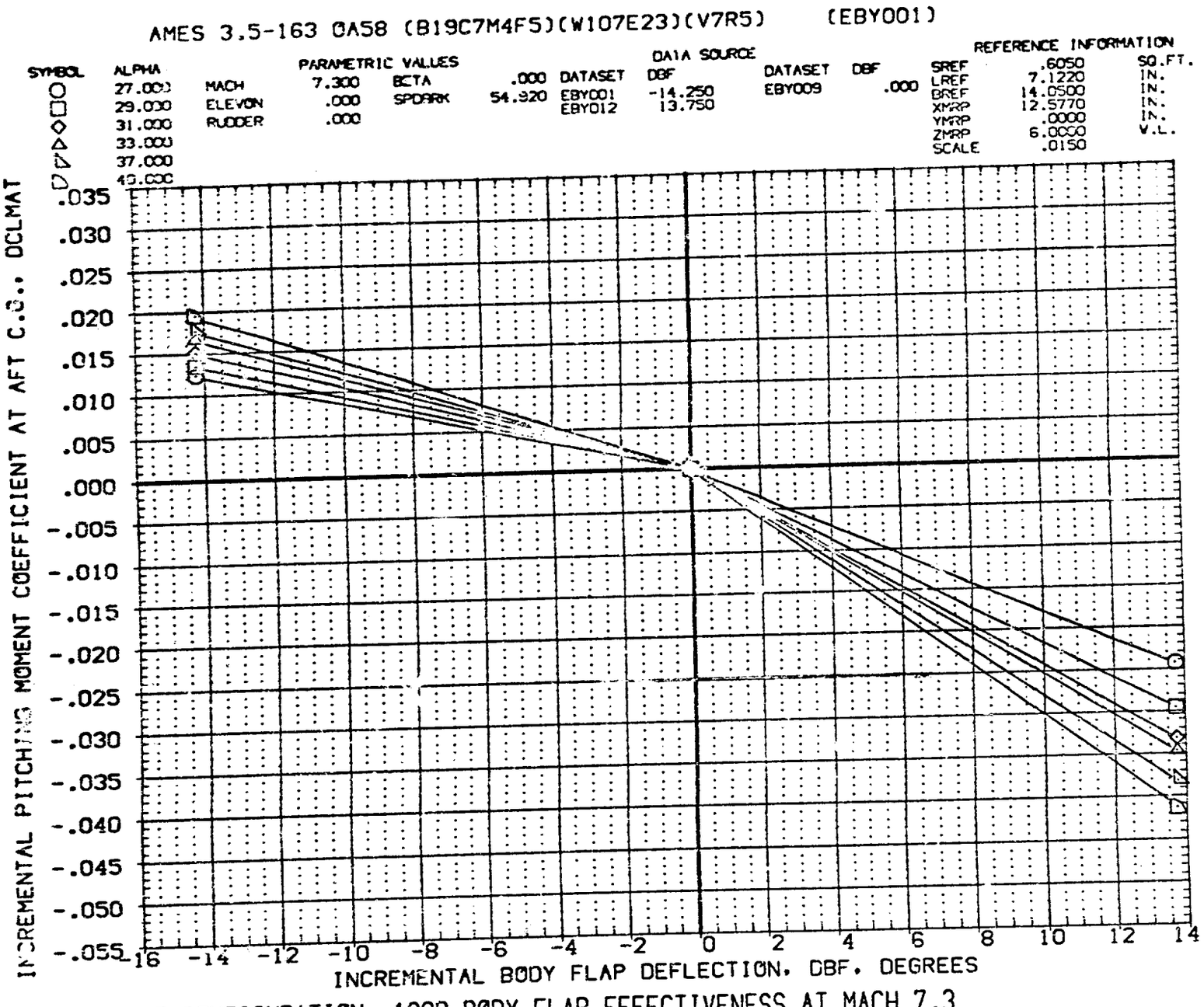


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY001)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	43.000	MACH	7.300	BETA	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	48.000	ELEVON	.000	SPOBRK	54.920	EBY001	-14.250	EBY009	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			EBY012	13.750			BREF	14.0600	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	IN.
										SCALE	.0150	A.L.

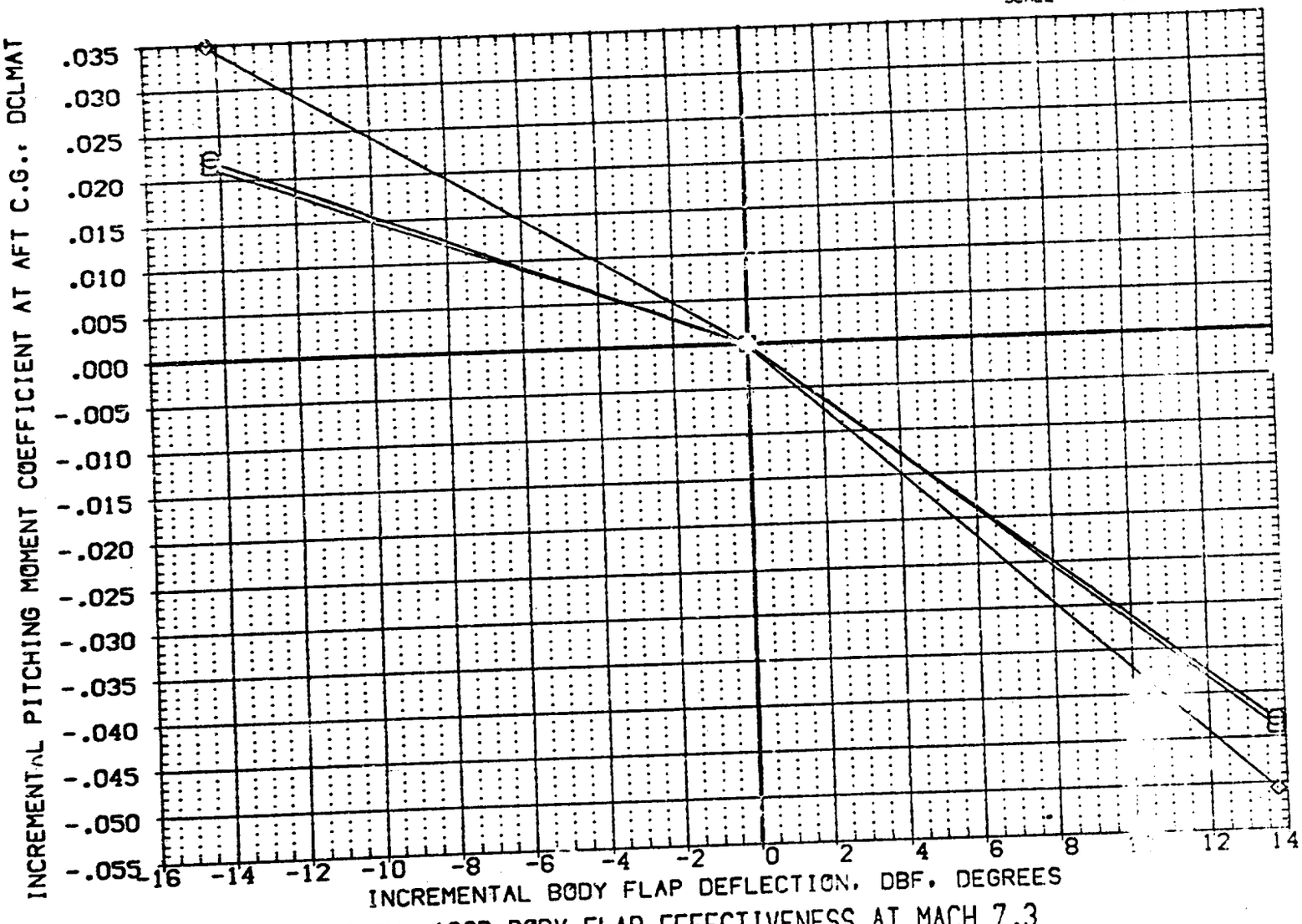


FIG. 7 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 7.3

C-3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBYO15)	○	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BGYO10)	□	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	.000	54.920
(BGYO13)	◇	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

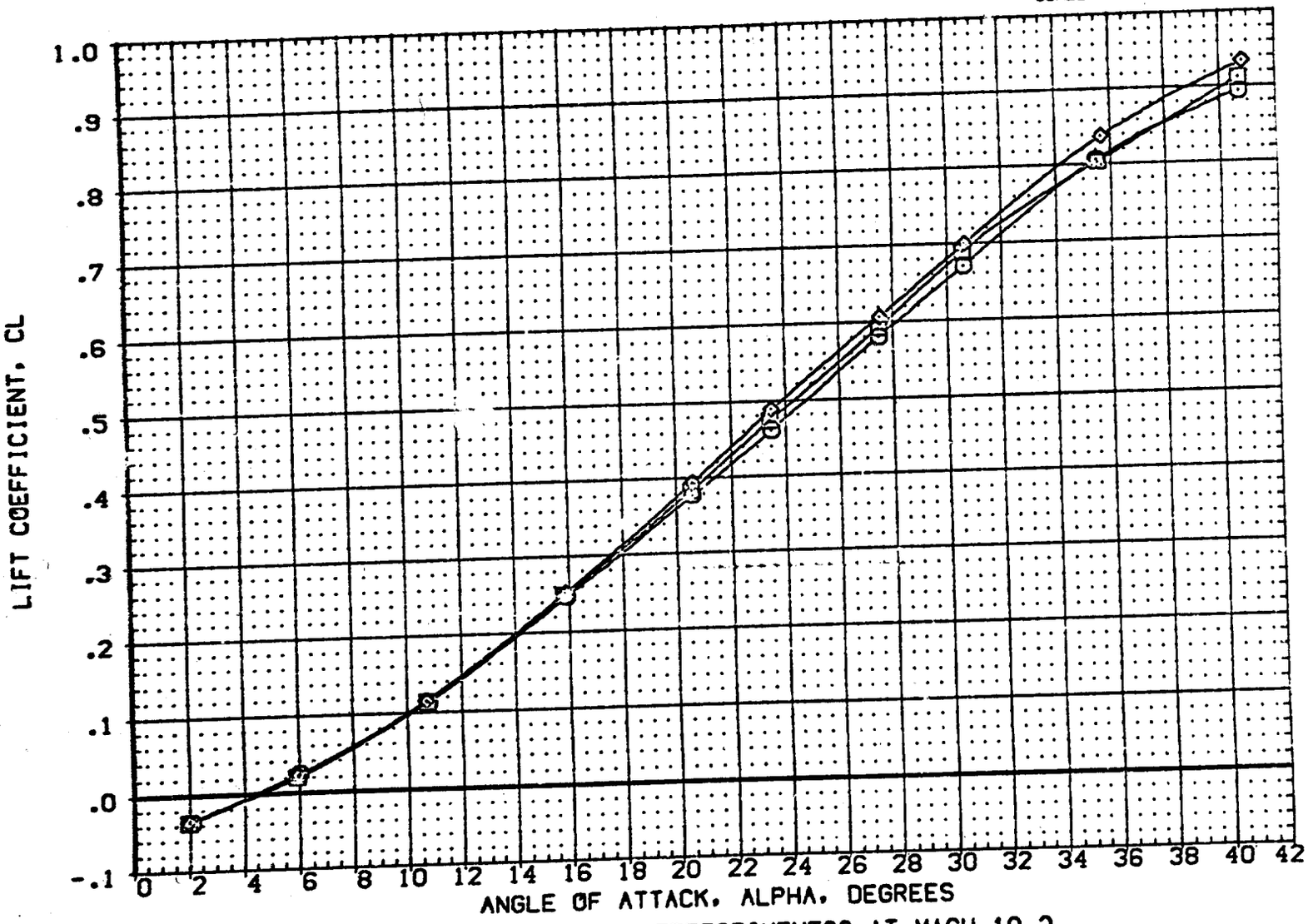


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y015) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y010) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(88Y013) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

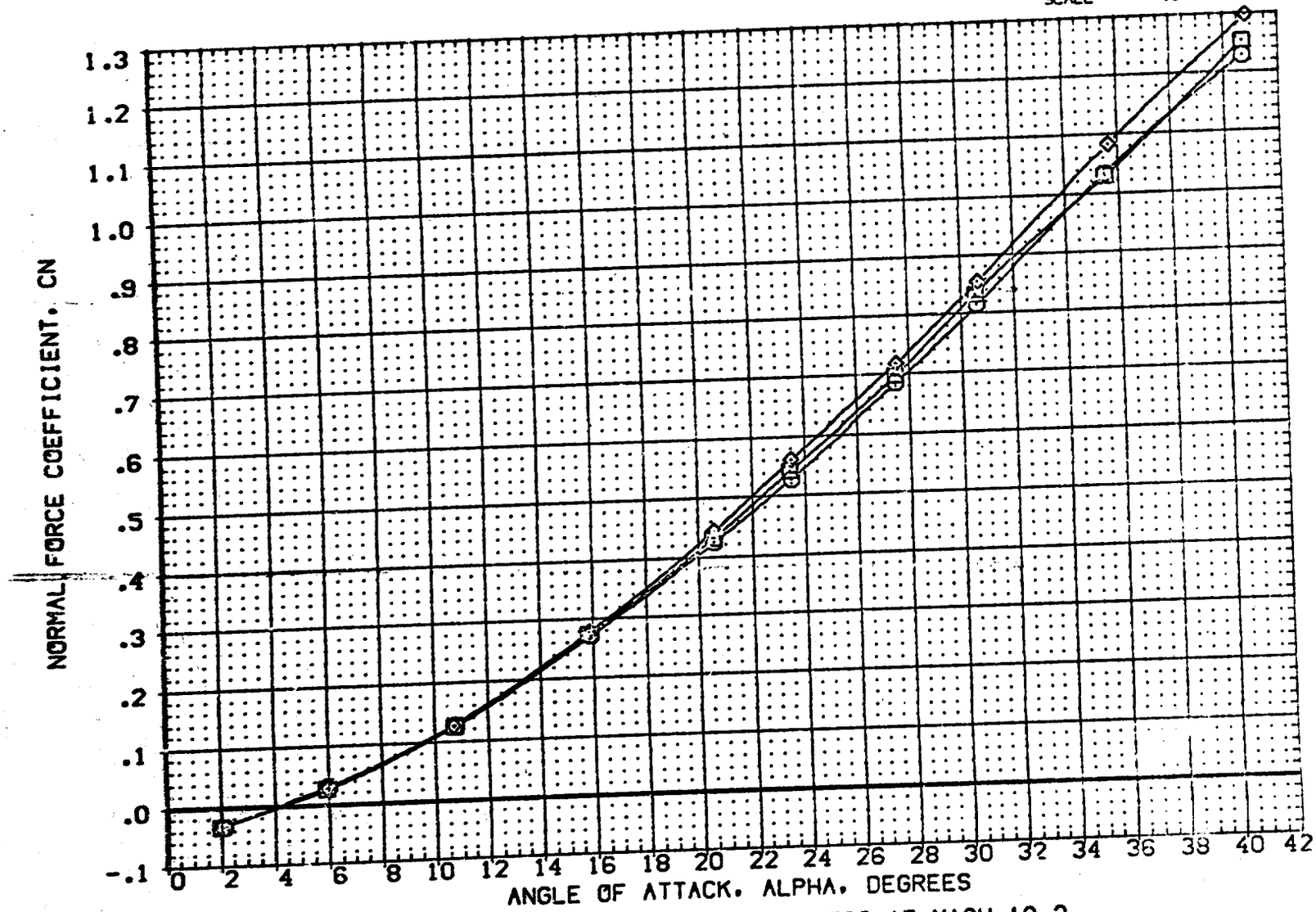


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY015)	○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	□	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

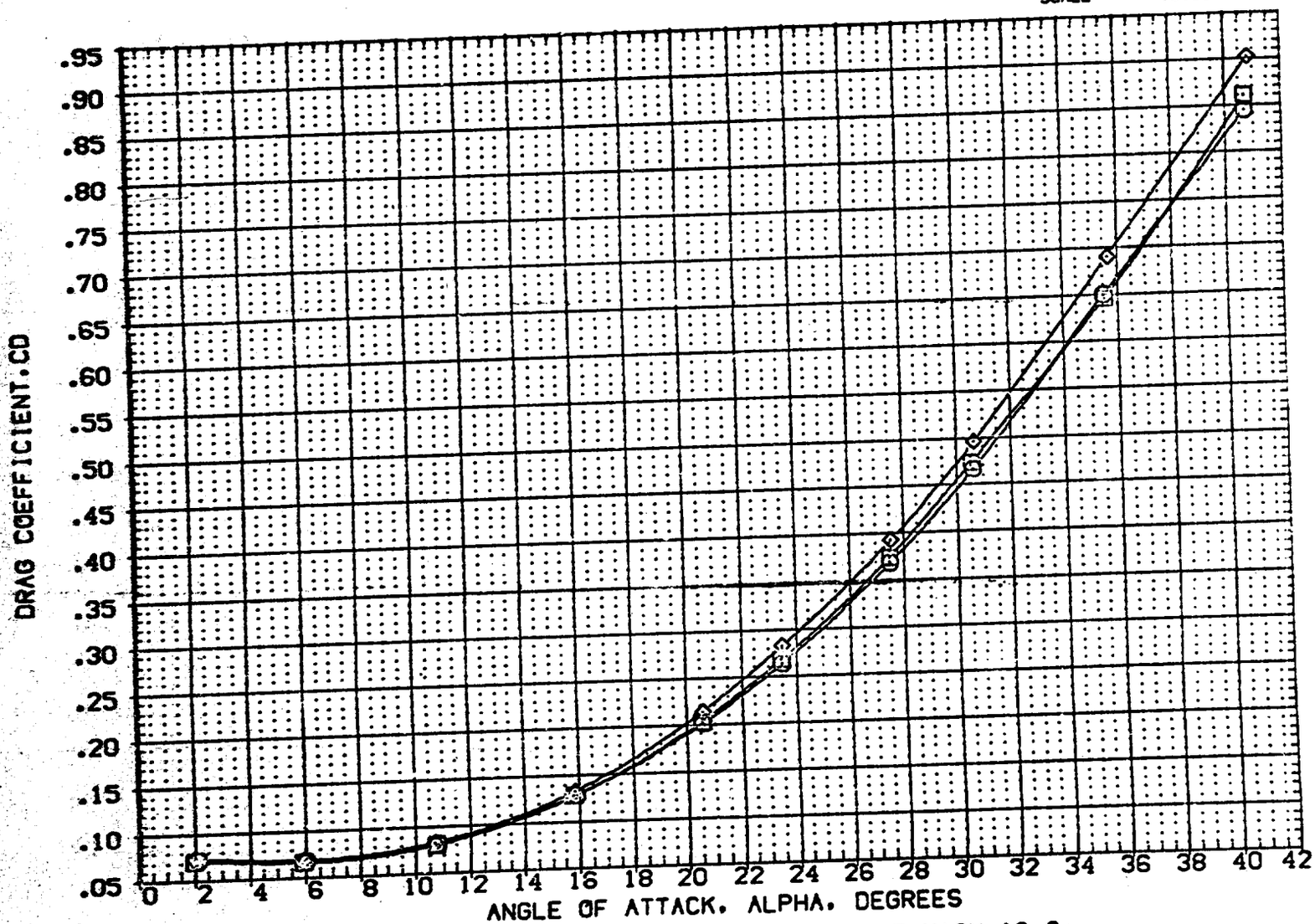


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

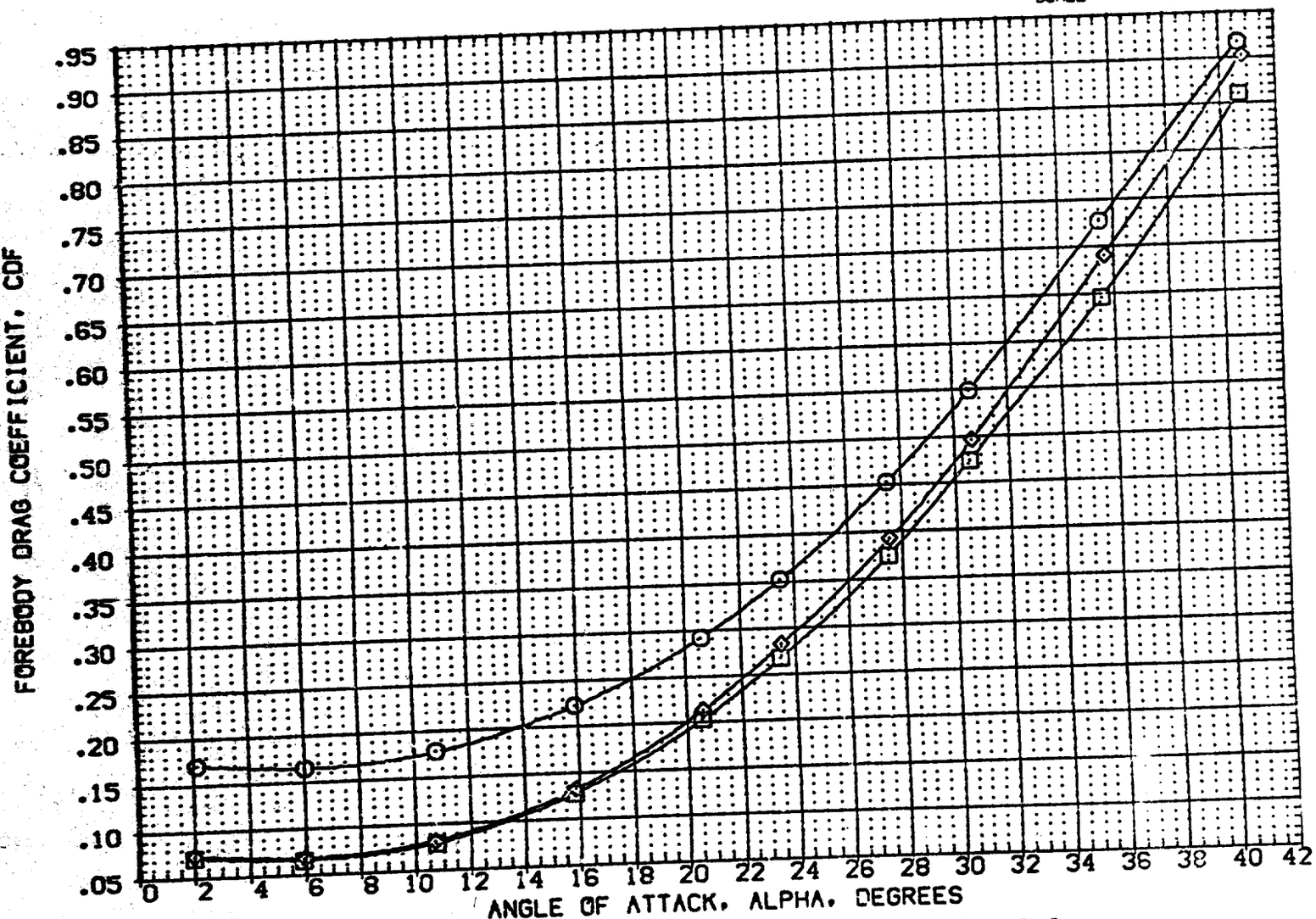


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

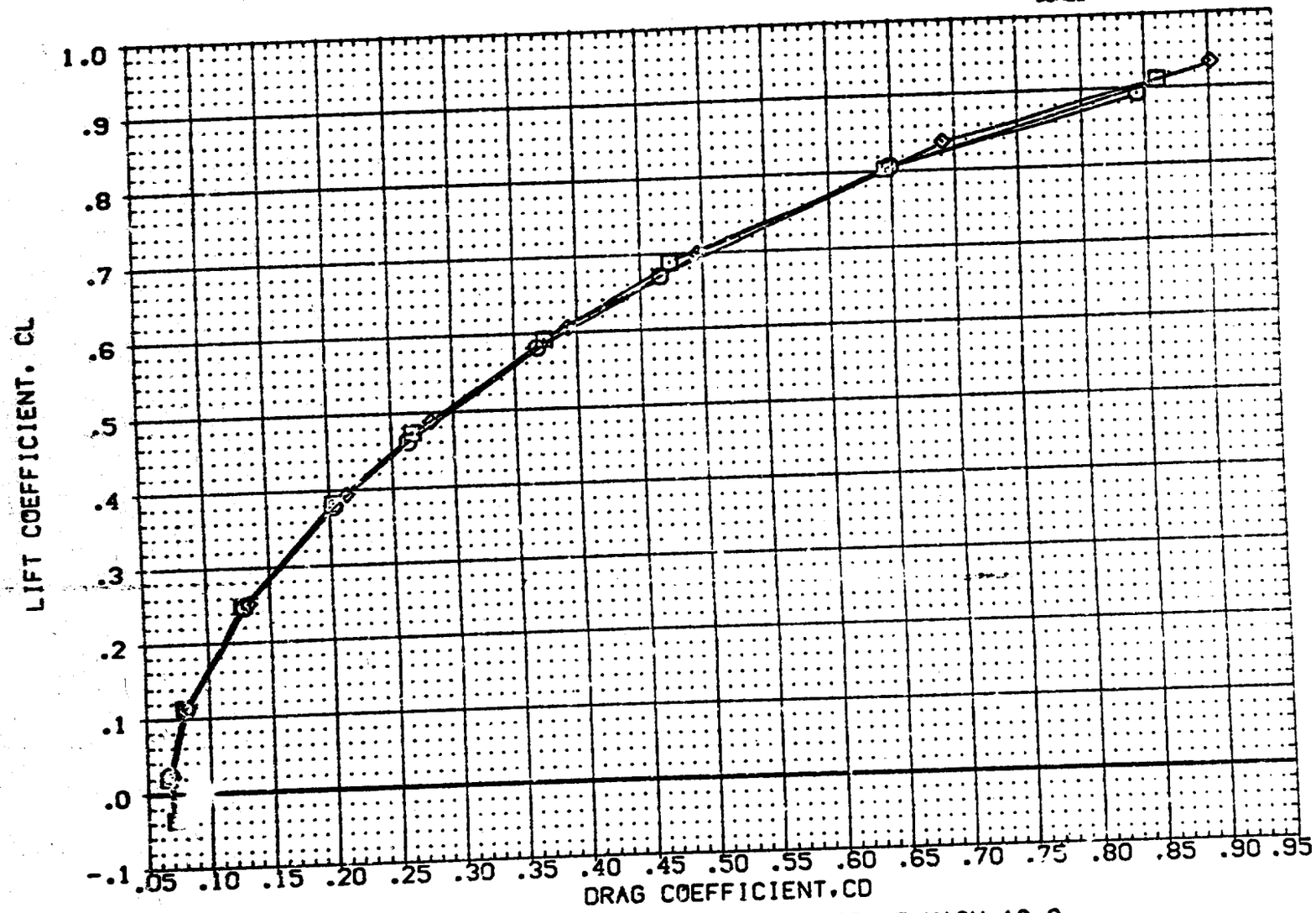


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY015)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

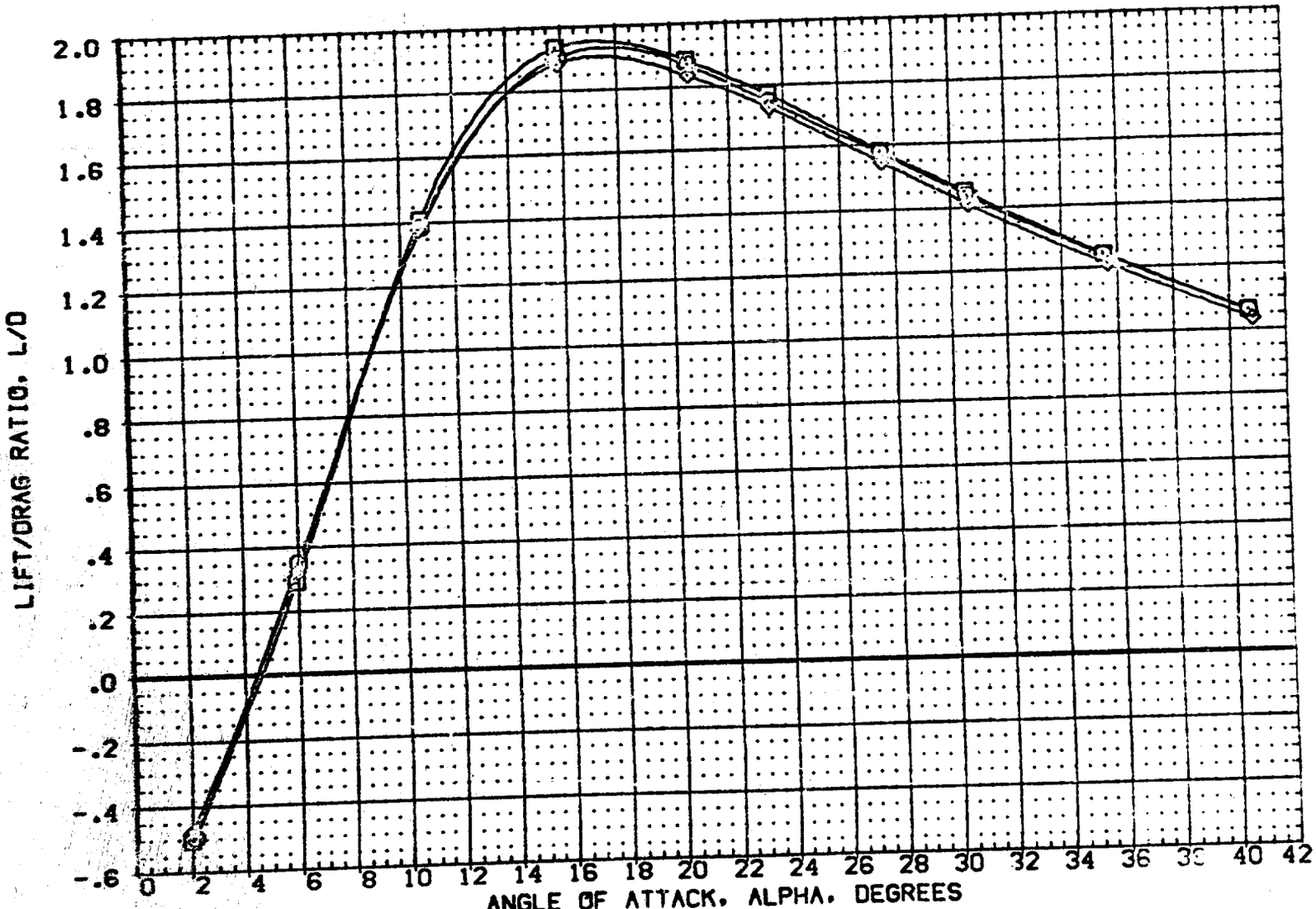


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y015) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y010) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(88Y013) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

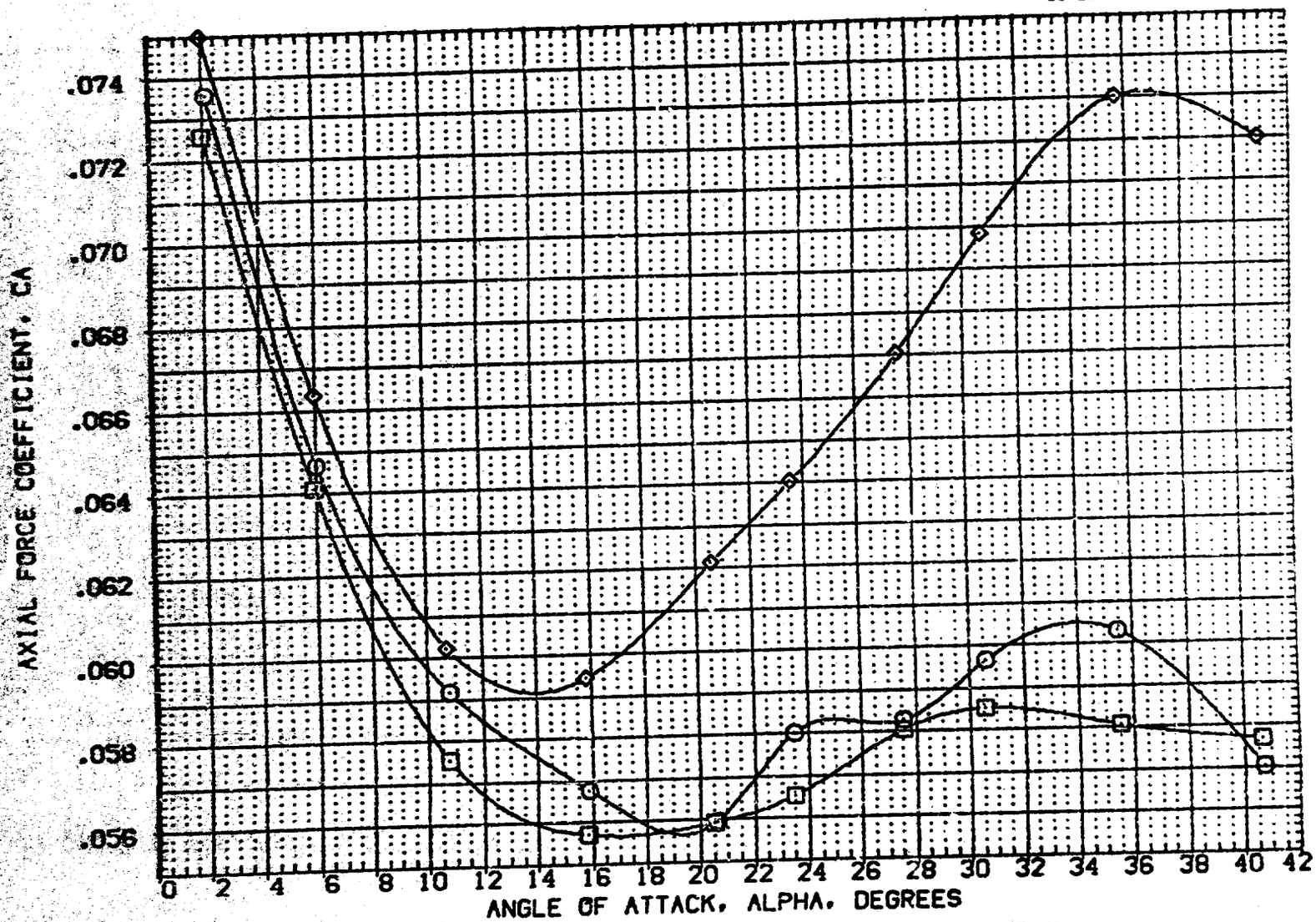


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y015)	□	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(88Y010)	○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(88Y013)	◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

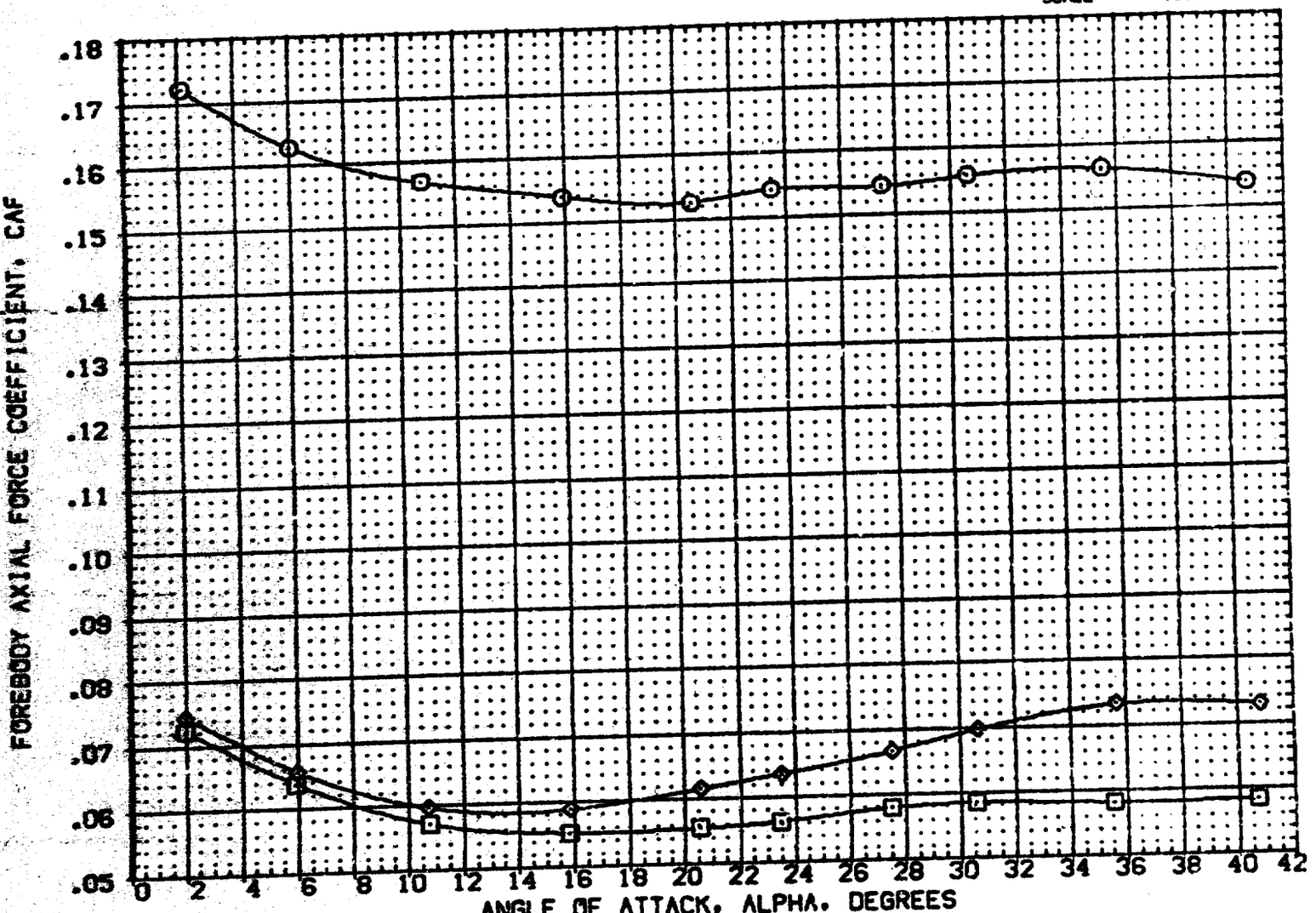


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8Y015) ○	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(B8Y010) □	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(B8Y013) ◇	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

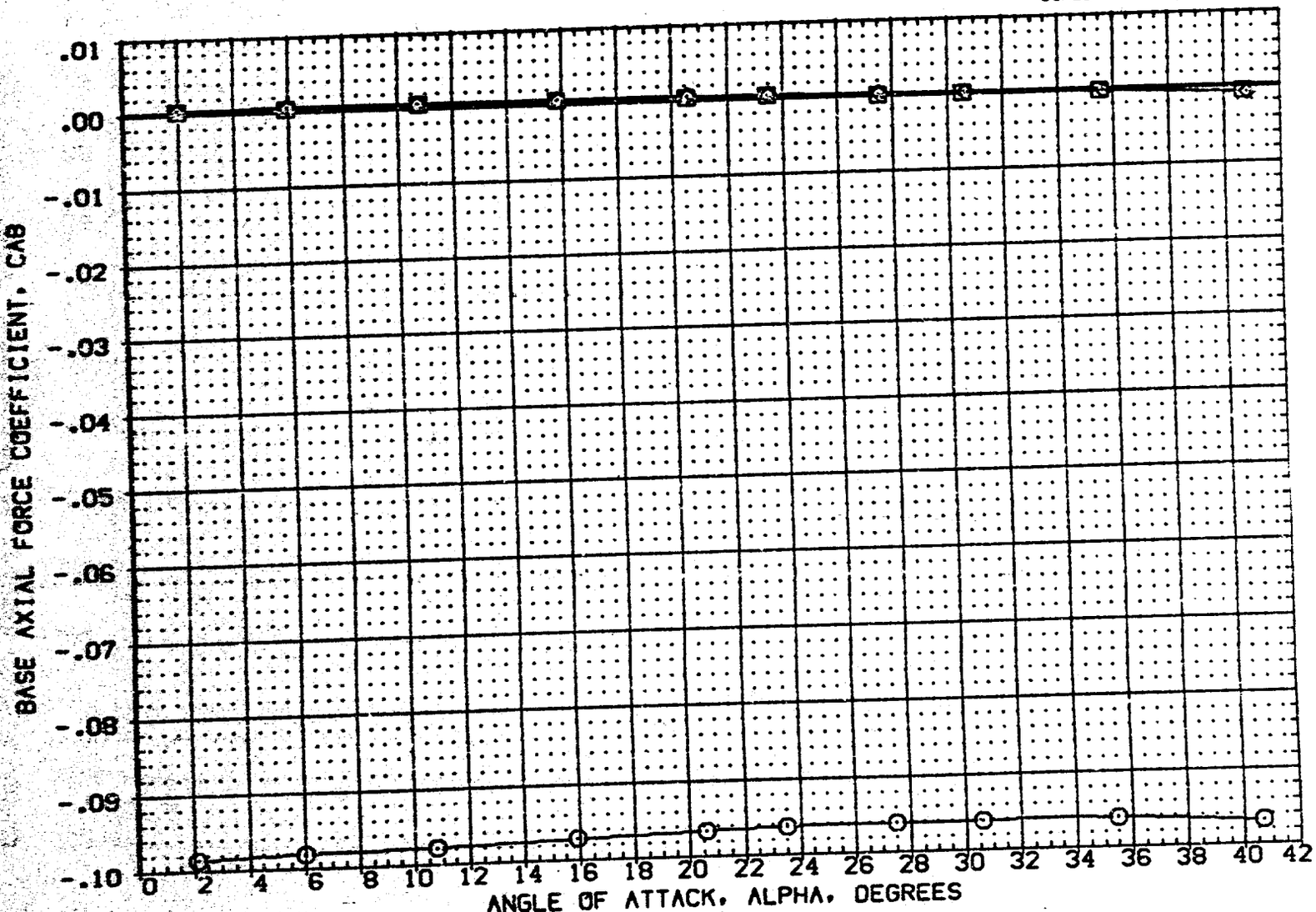


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BCFLAP	SPDBRK
(BBY015)	AMES 3.5-163 BASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	AMES 3.5-163 BASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	AMES 3.5-163 BASE (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

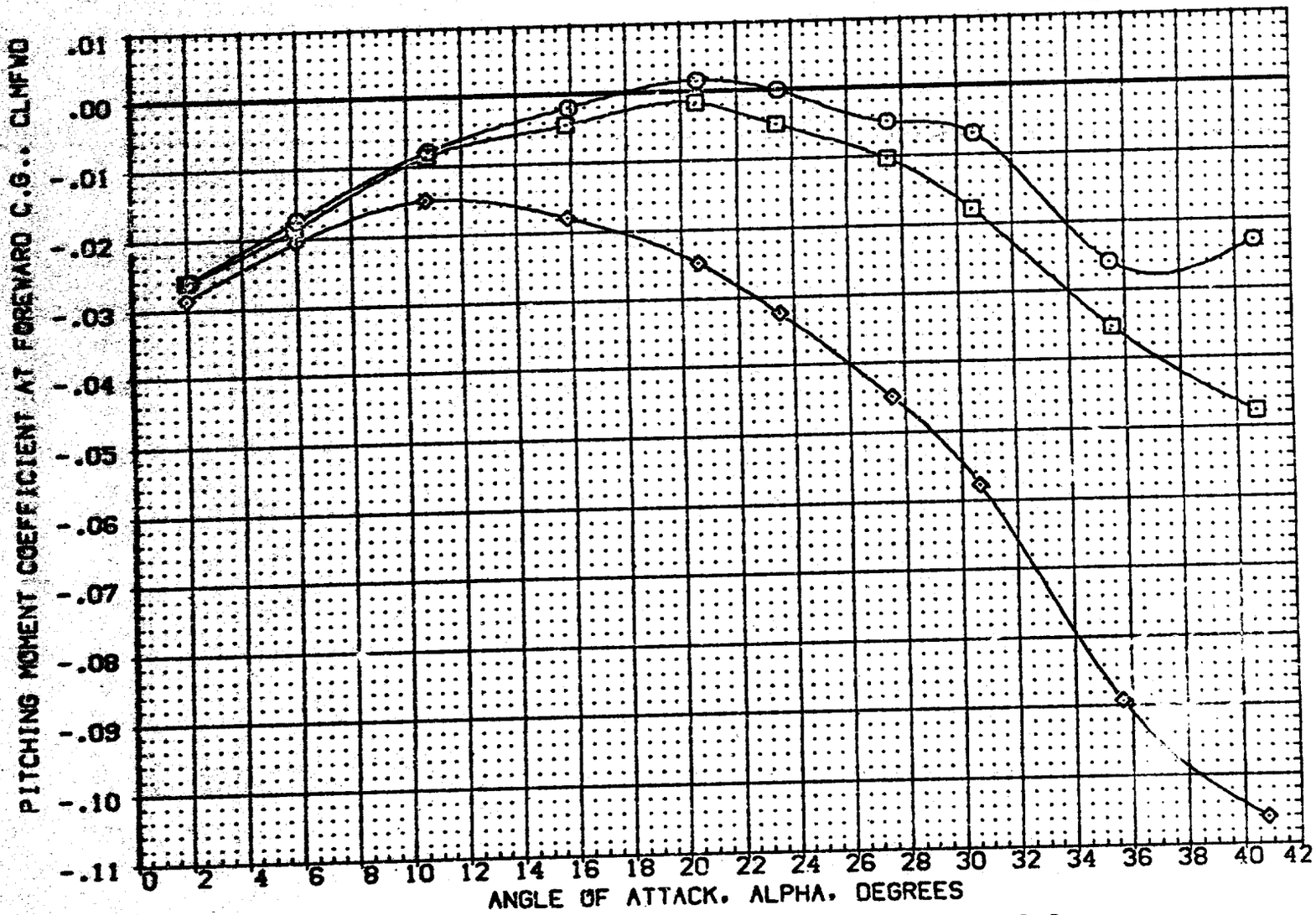


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBY010)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

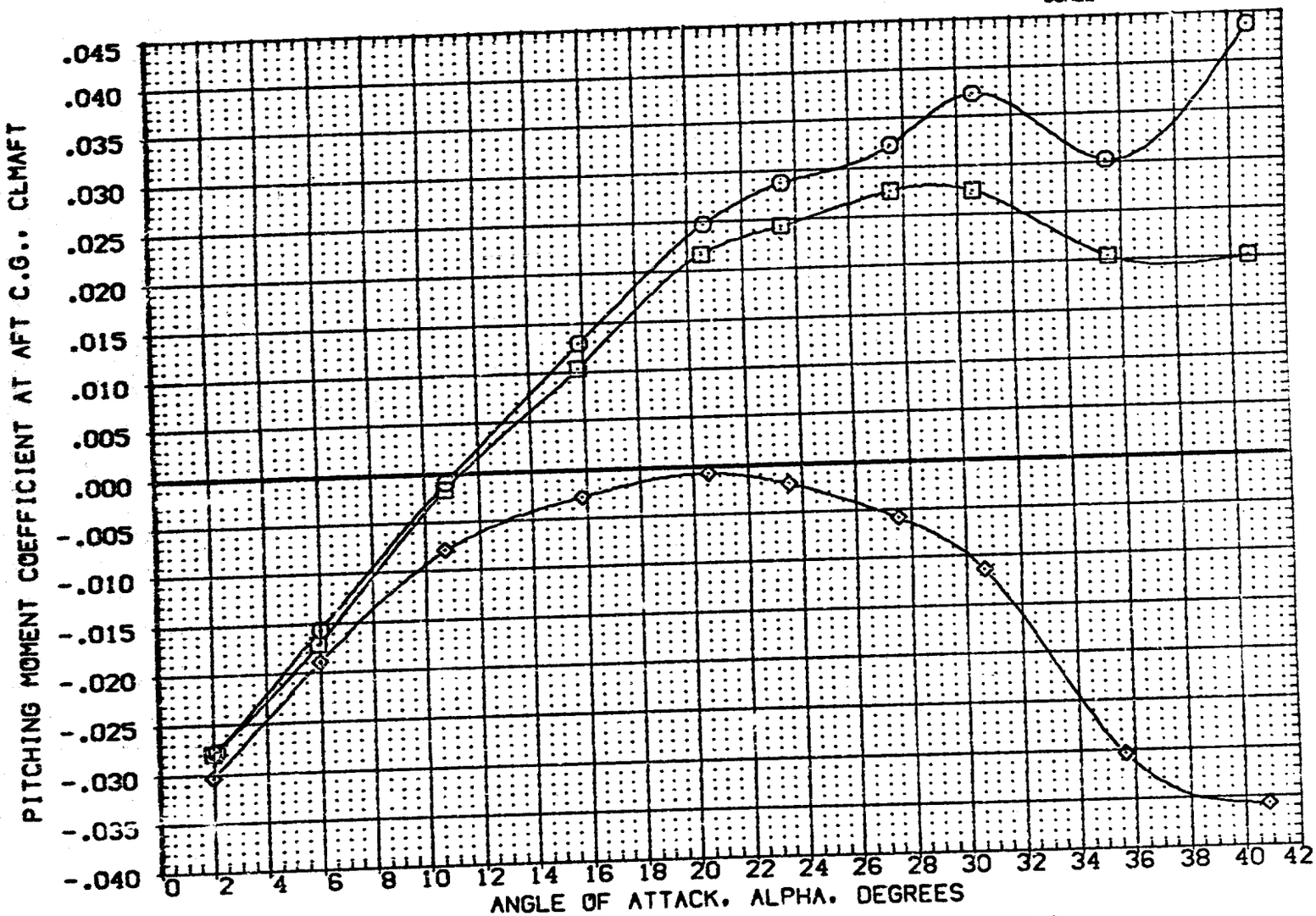


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBYO15) ○	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBYO10) □	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBYO13) ◇	AMES 3.5-163 OA58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

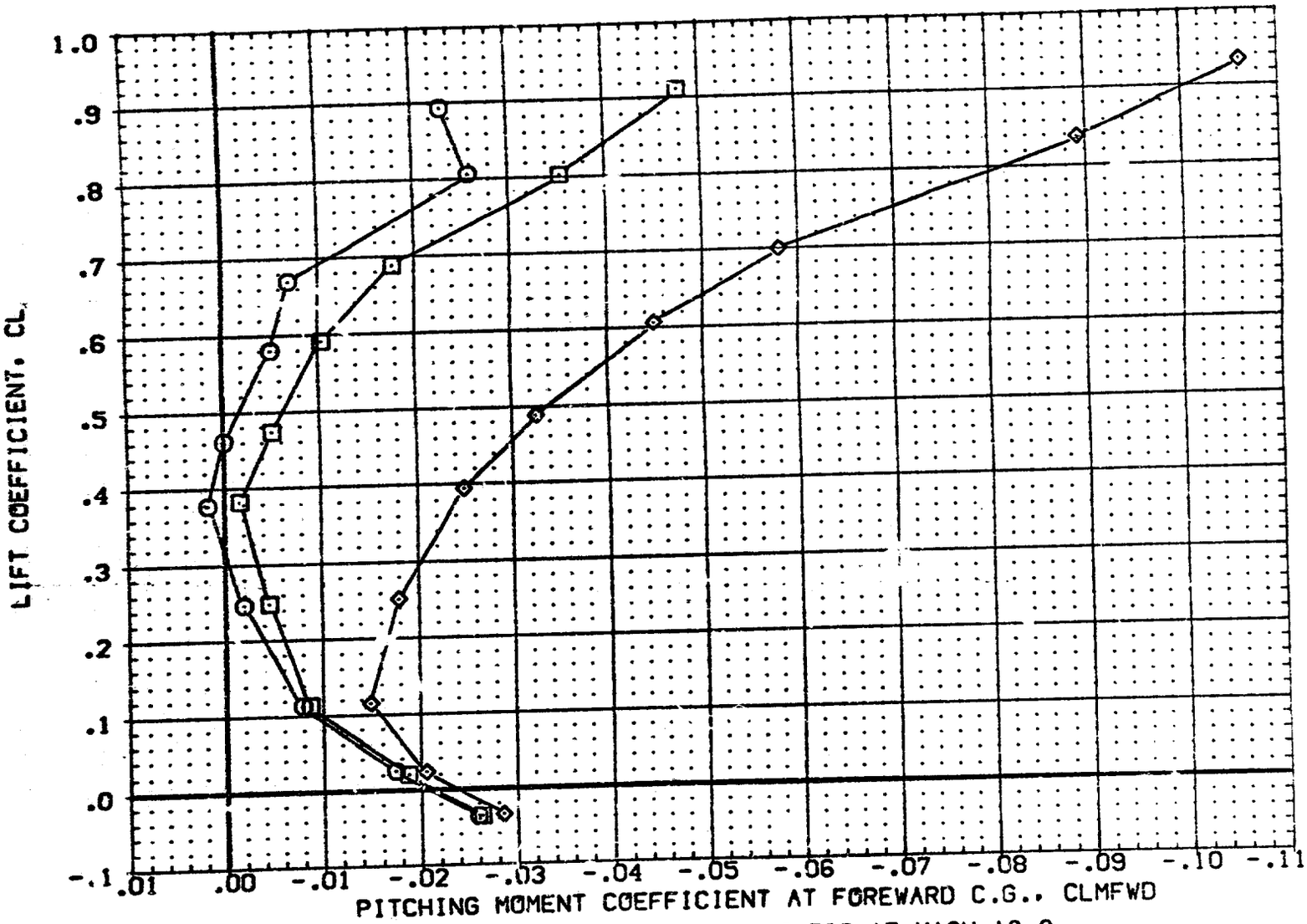


FIG. 8 CONFIGUPATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY015) ○	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(BBYC10) □	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	.000	54.920
(BBY013) ◇	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

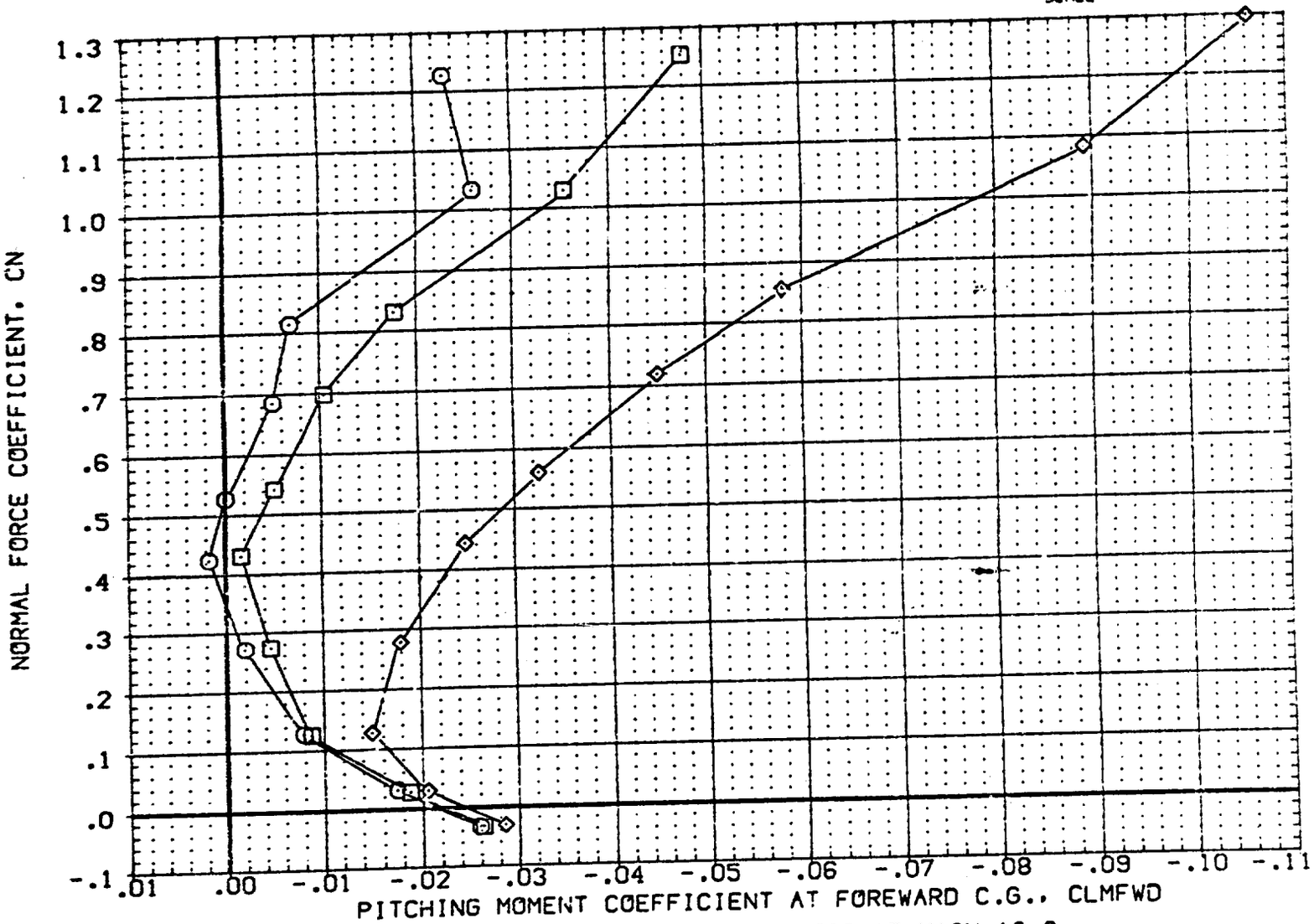


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(R8Y015)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	-14.250	54.920
(R8Y010)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	.000	54.920
(R8Y013)	AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

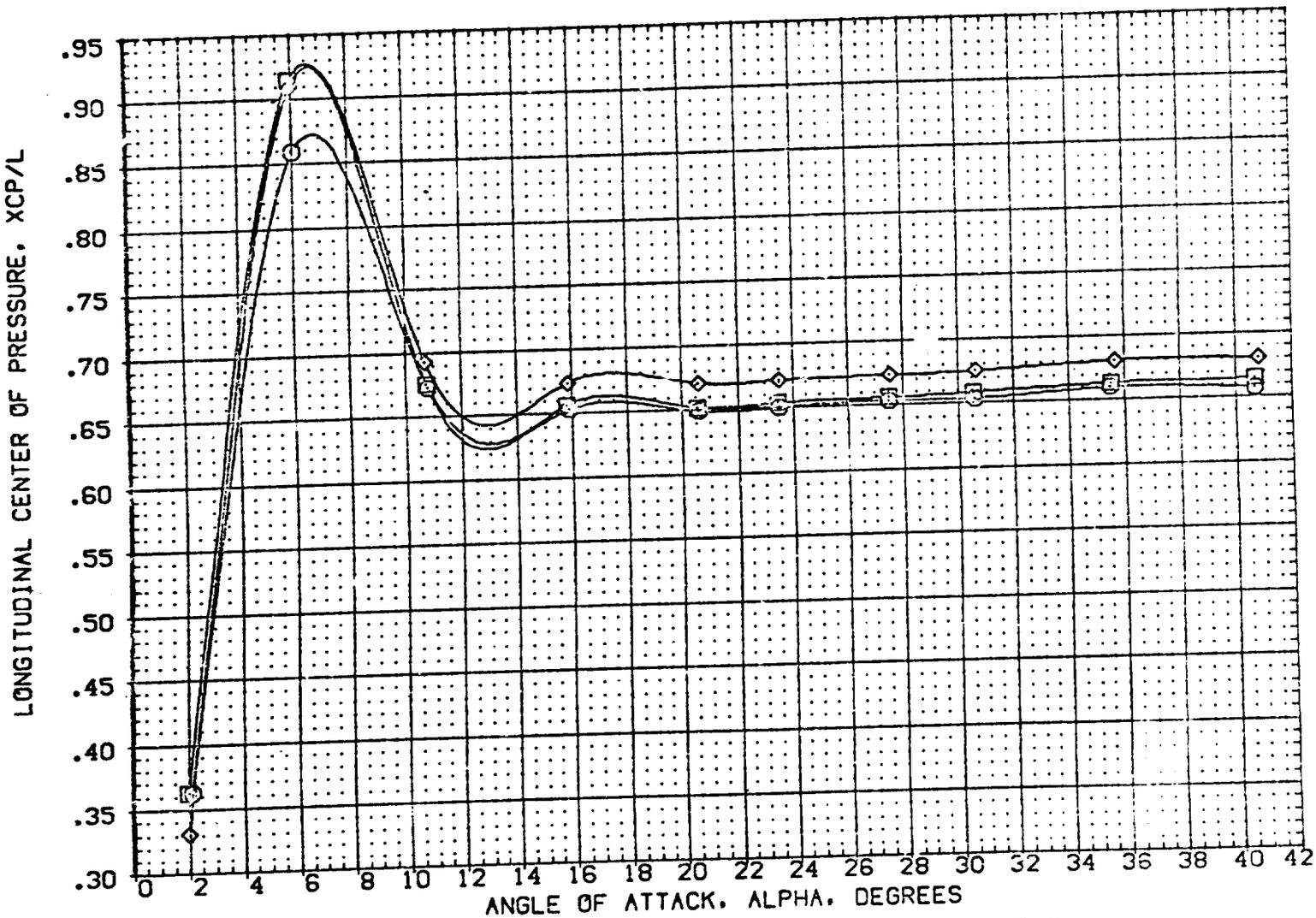


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

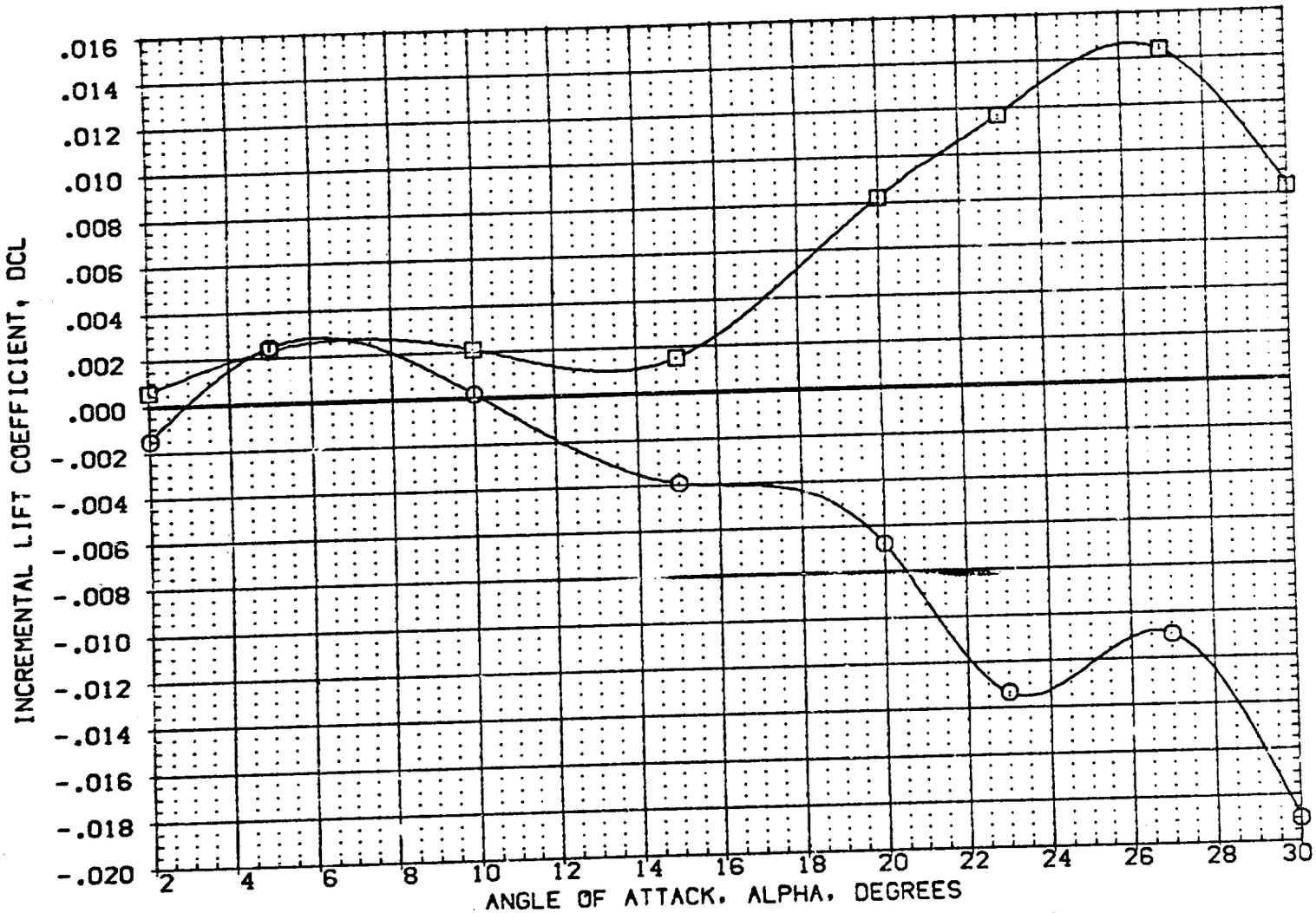


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

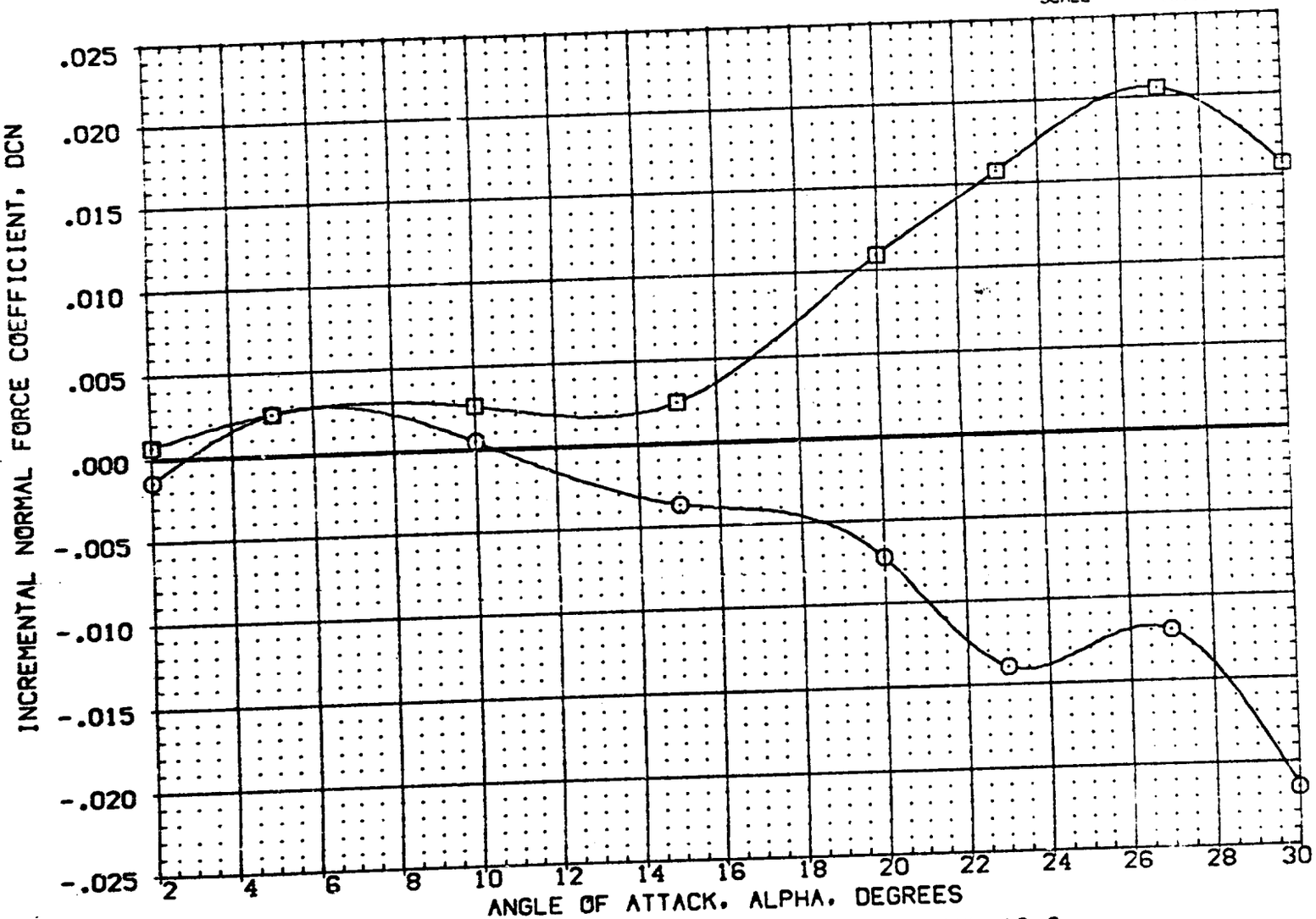


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(EBY015)	AMES 3.5-163 0A50 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A50 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

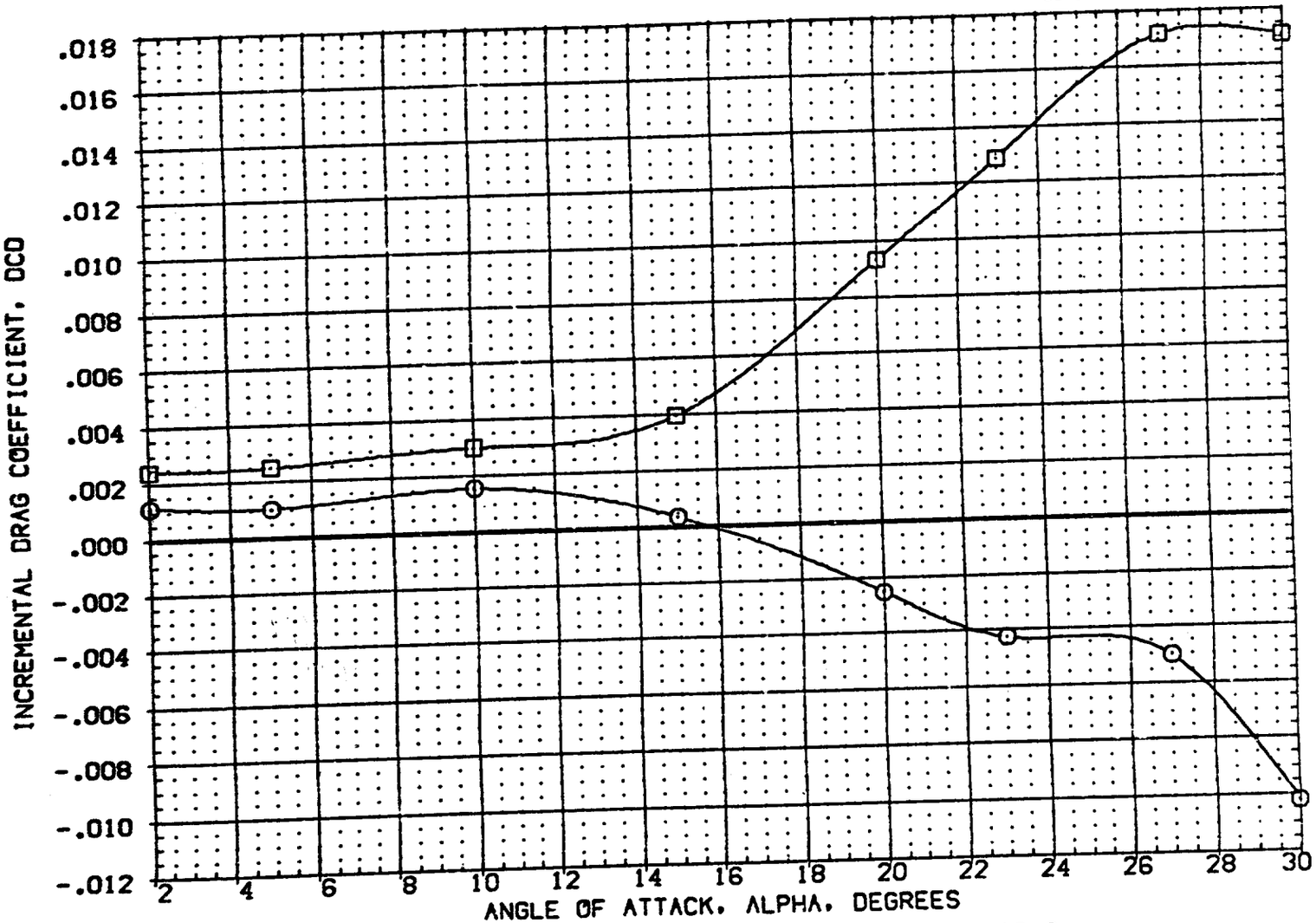


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4FS)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

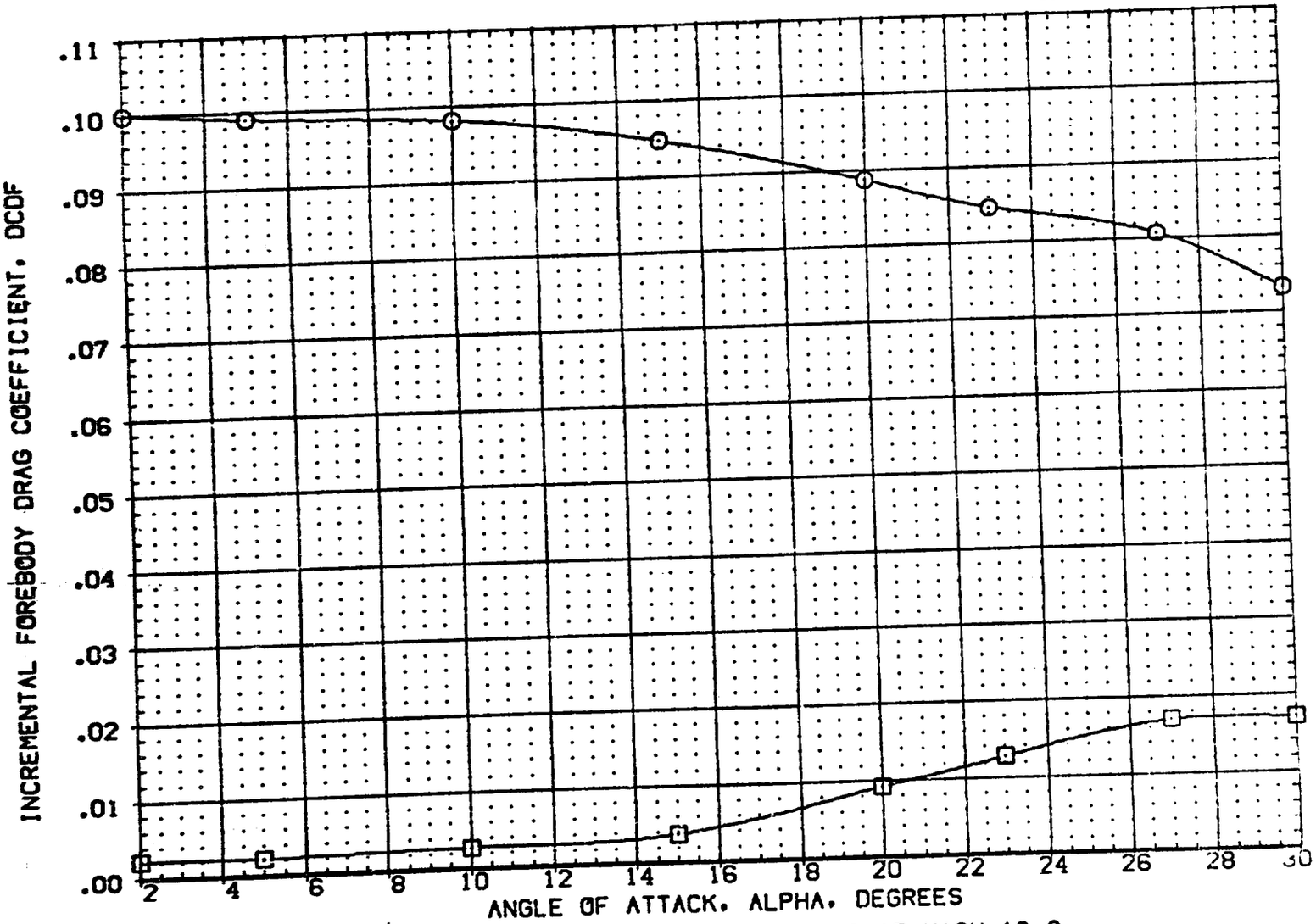


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

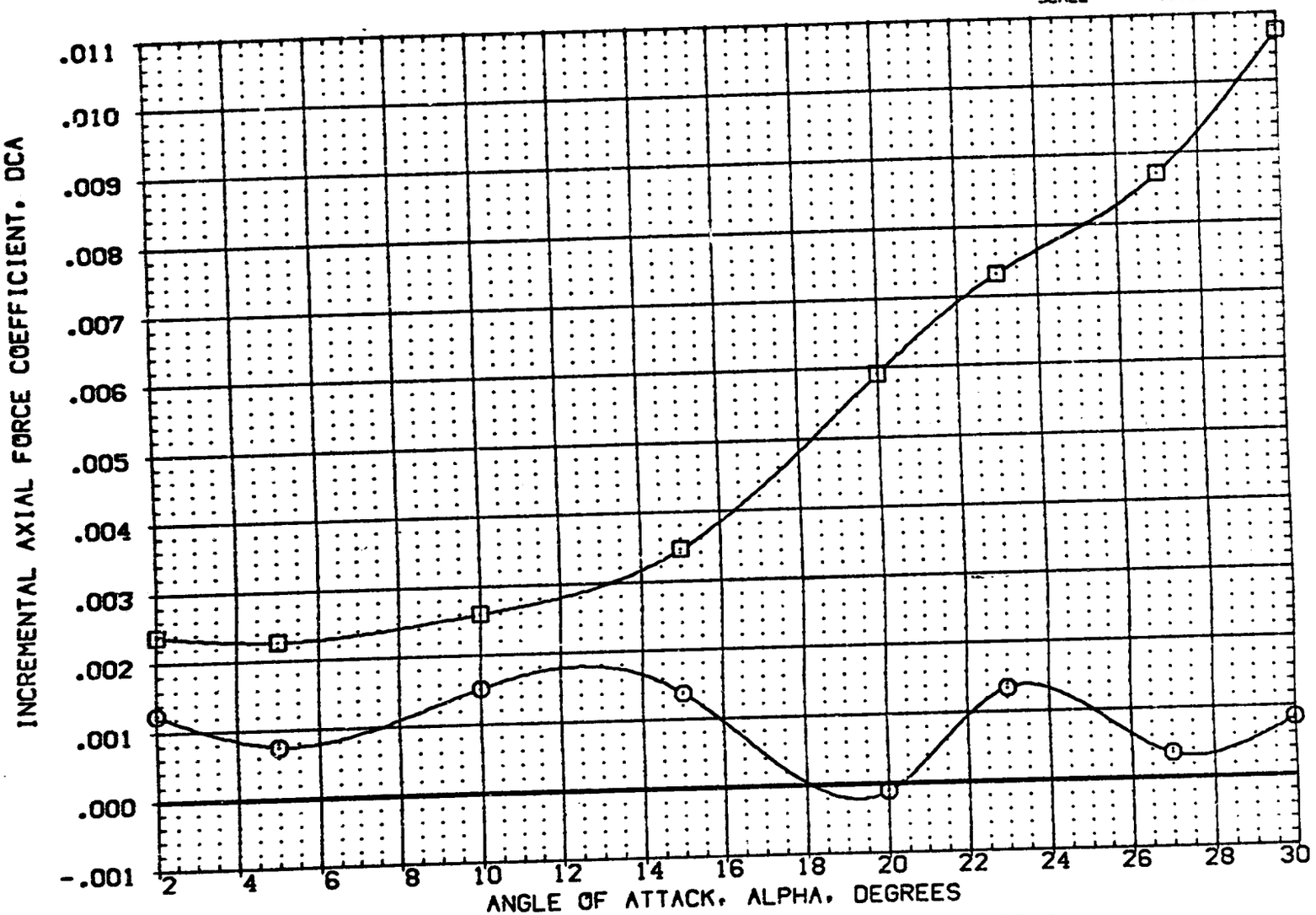


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

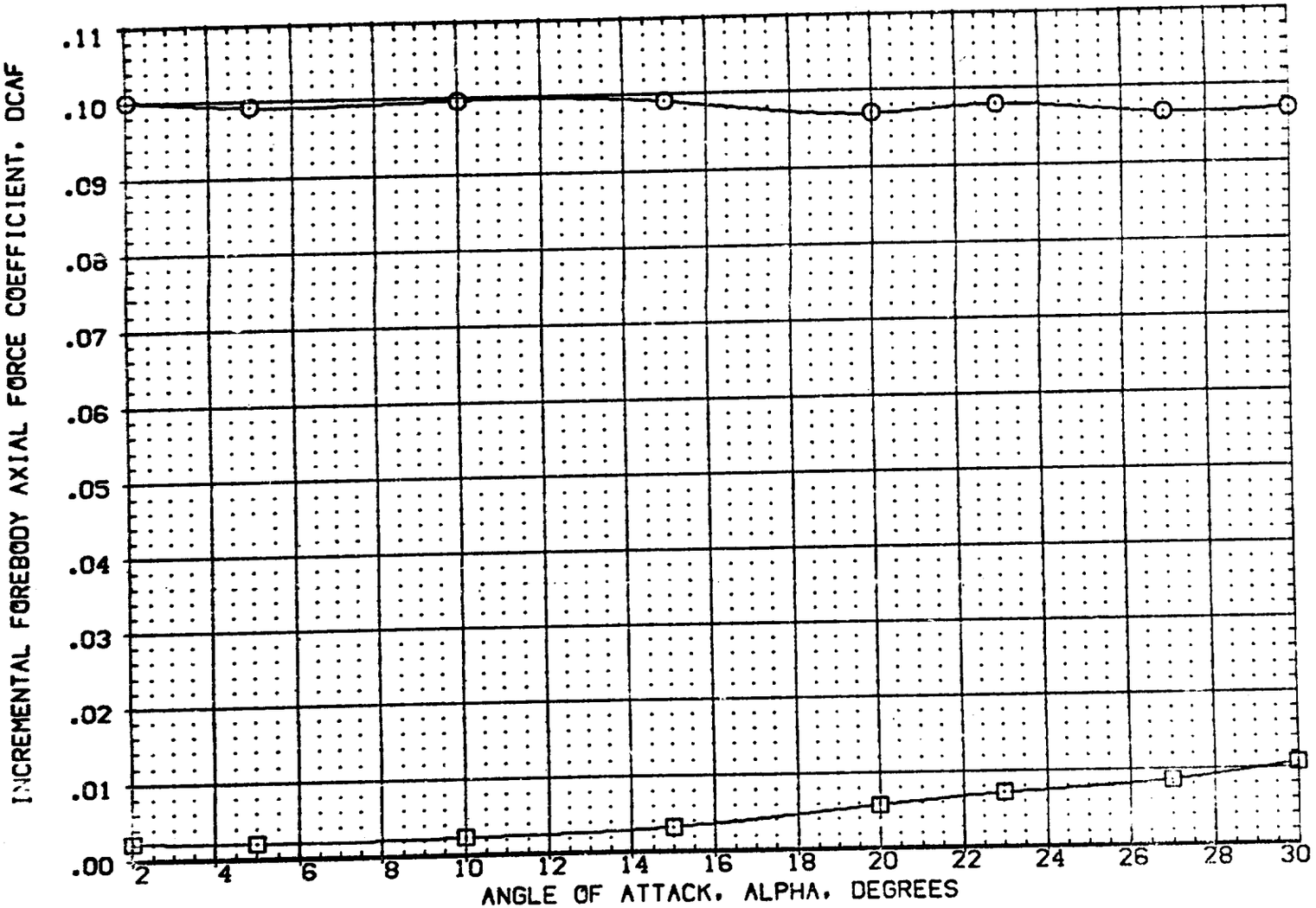


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPDBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

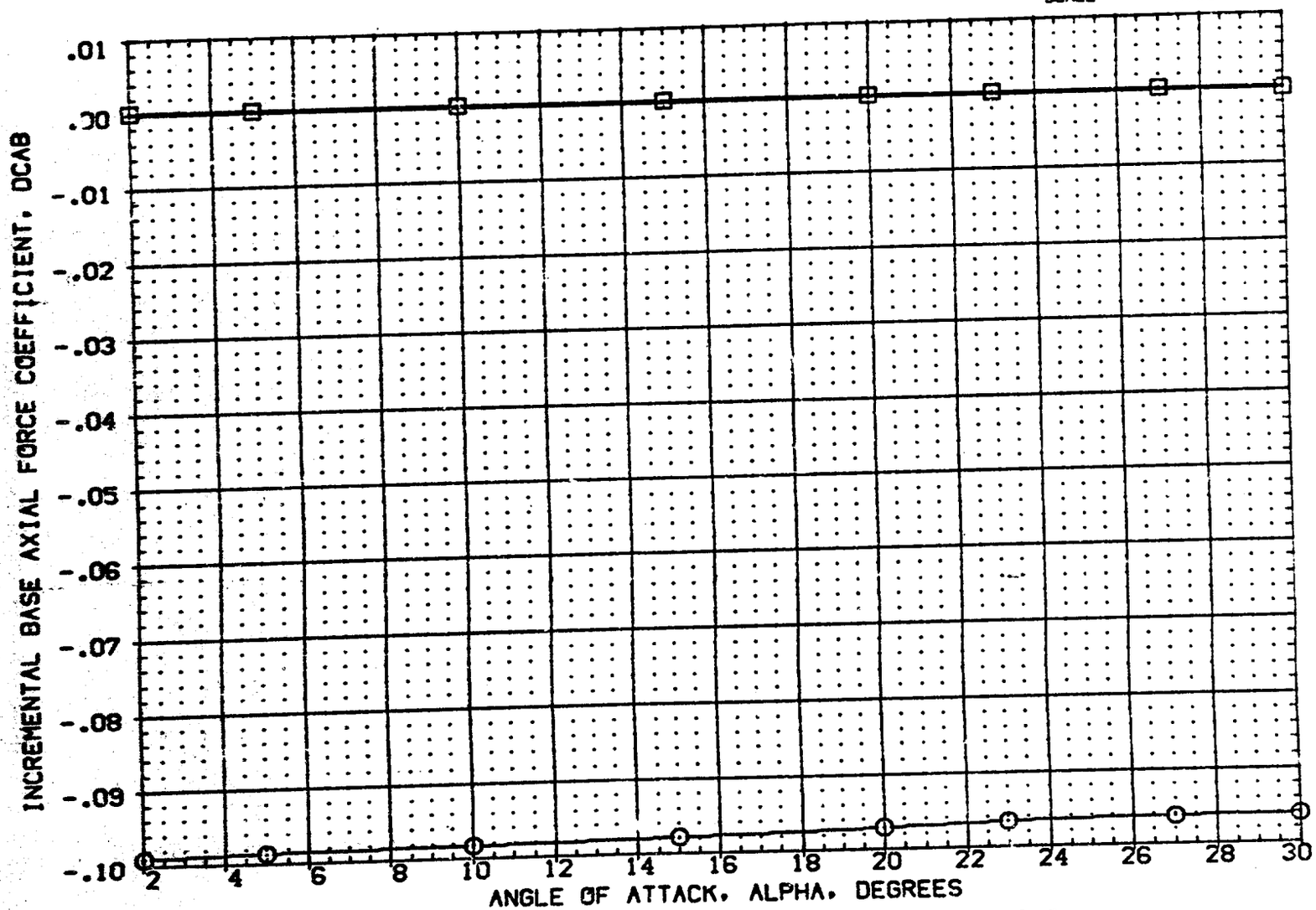


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(EBY015)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 OAS8 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

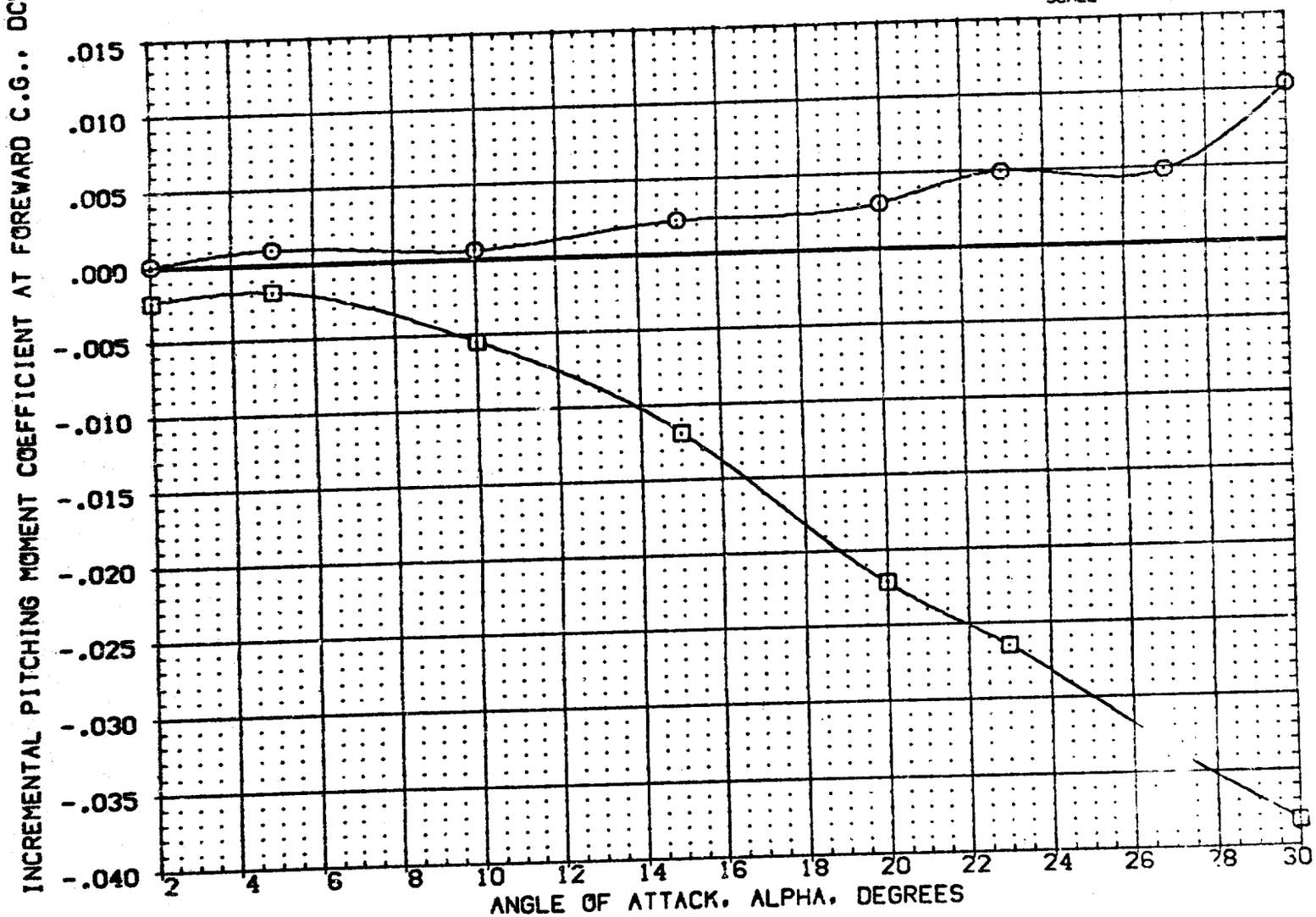


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	DBF	SPOBRK
(EBY015)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	-14.250	54.920
(EBY013)	AMES 3.5-163 0A58 (B19C7M4F5)(V107E23)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

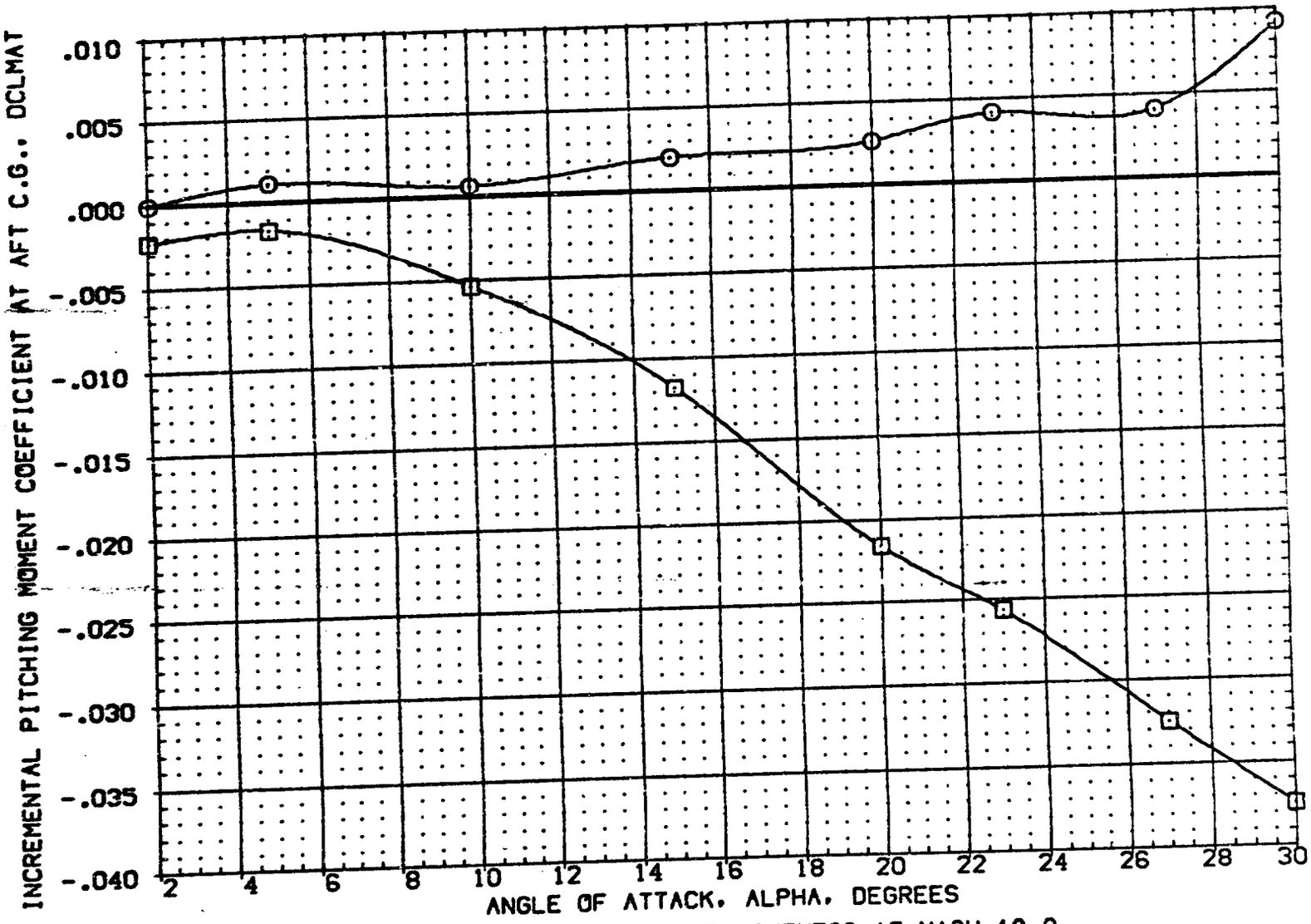


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

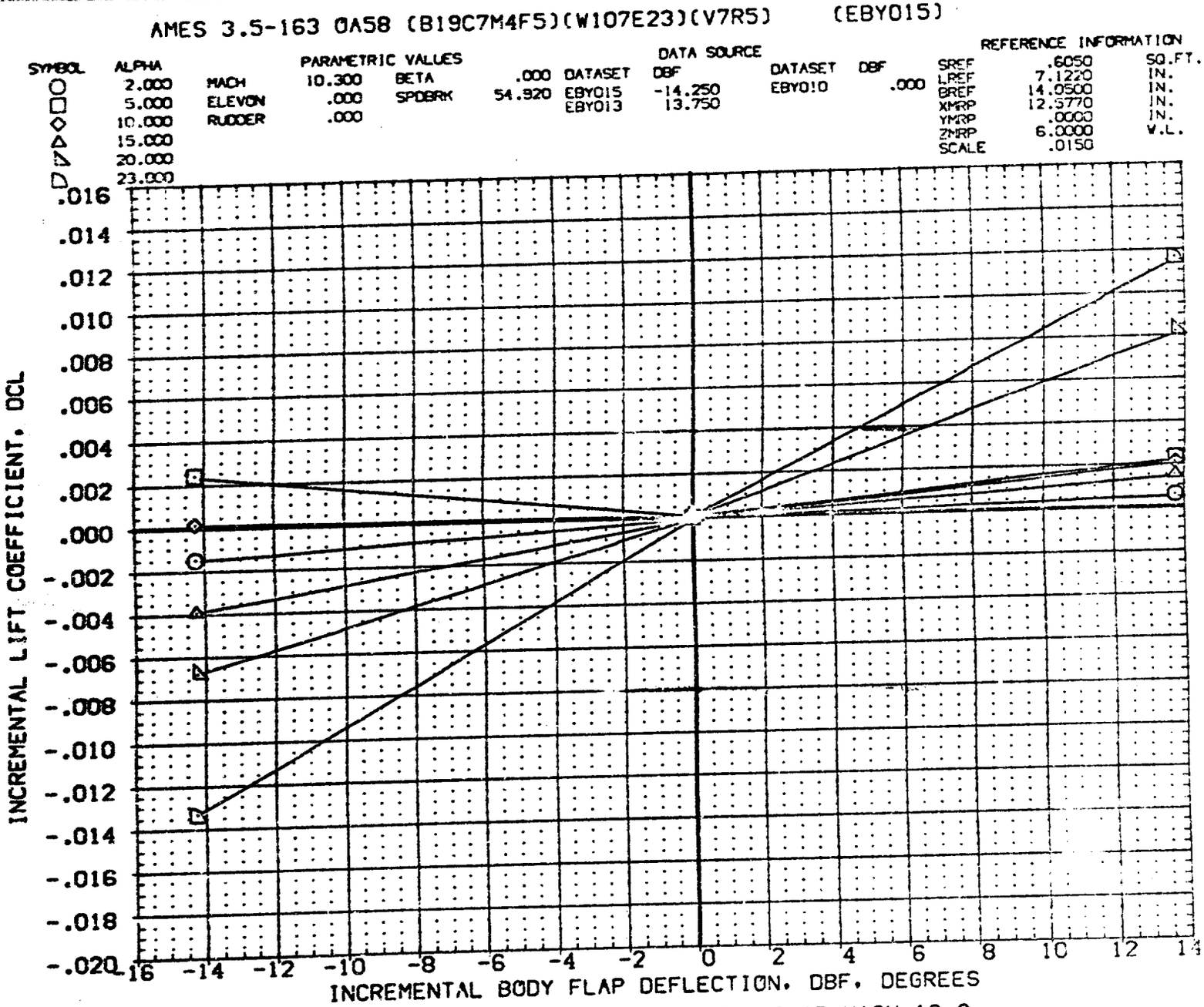


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	BETA	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	30.000	ELEVON	.000	SPOBRK	54.920	EBY015	-14.250	EBY010	.000	LREF	7.1220	IN.
		RUDDER	.000			EBY013	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

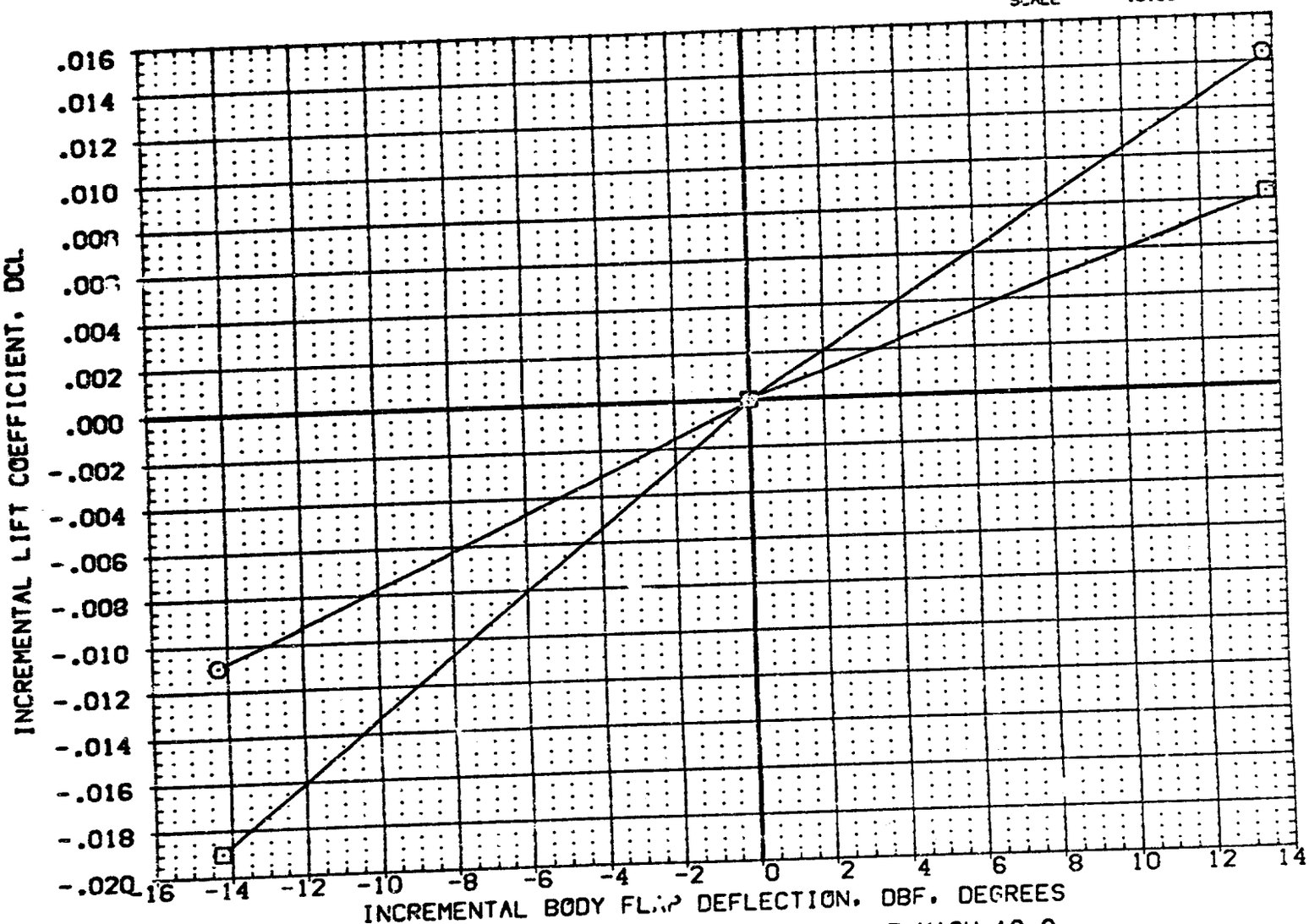


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA
▽	2.000
△	5.000
◇	10.000
□	15.000
○	20.000
D	23.000

PARAMETRIC VALUES

MACH	10.300	BETA	.000	DATASET	EBY015
ELEVON	.000	SPOBRK	54.920		EBY013
RUDDER	.000				

DATA SOURCE

DBF	-14.250
	13.750

DATASET	DBF	
EBY010	.000	

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.7770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

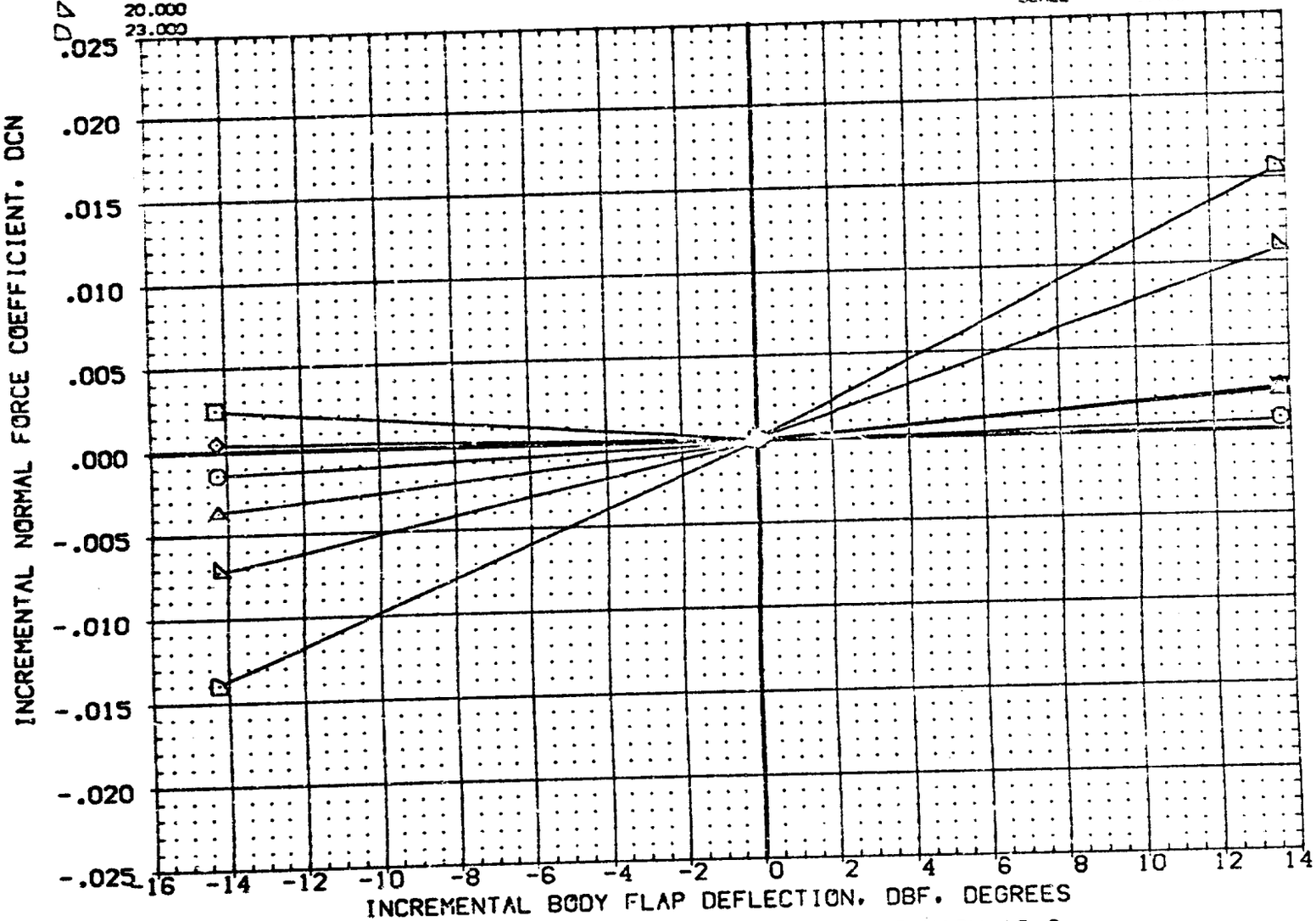


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	27.000	MACH	10.300	BETA	.000	DATASET	DBF	DATASET	DBF	.000
□	30.000	ELEVON	.000	SPDBRK	54.920	EBY015	-14.250	EBY010		
		RUDDER	.000			EBY013	13.750			

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

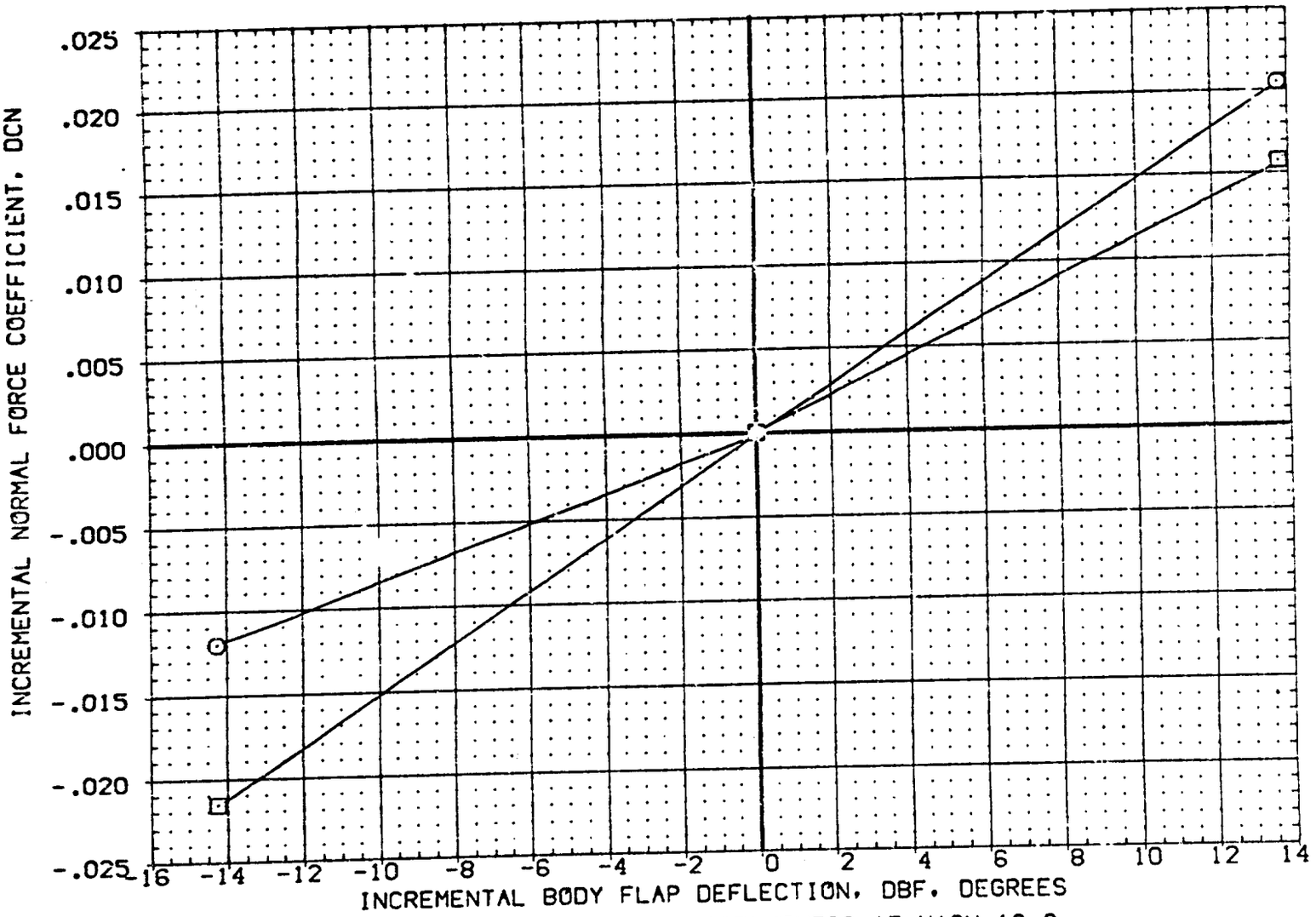


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

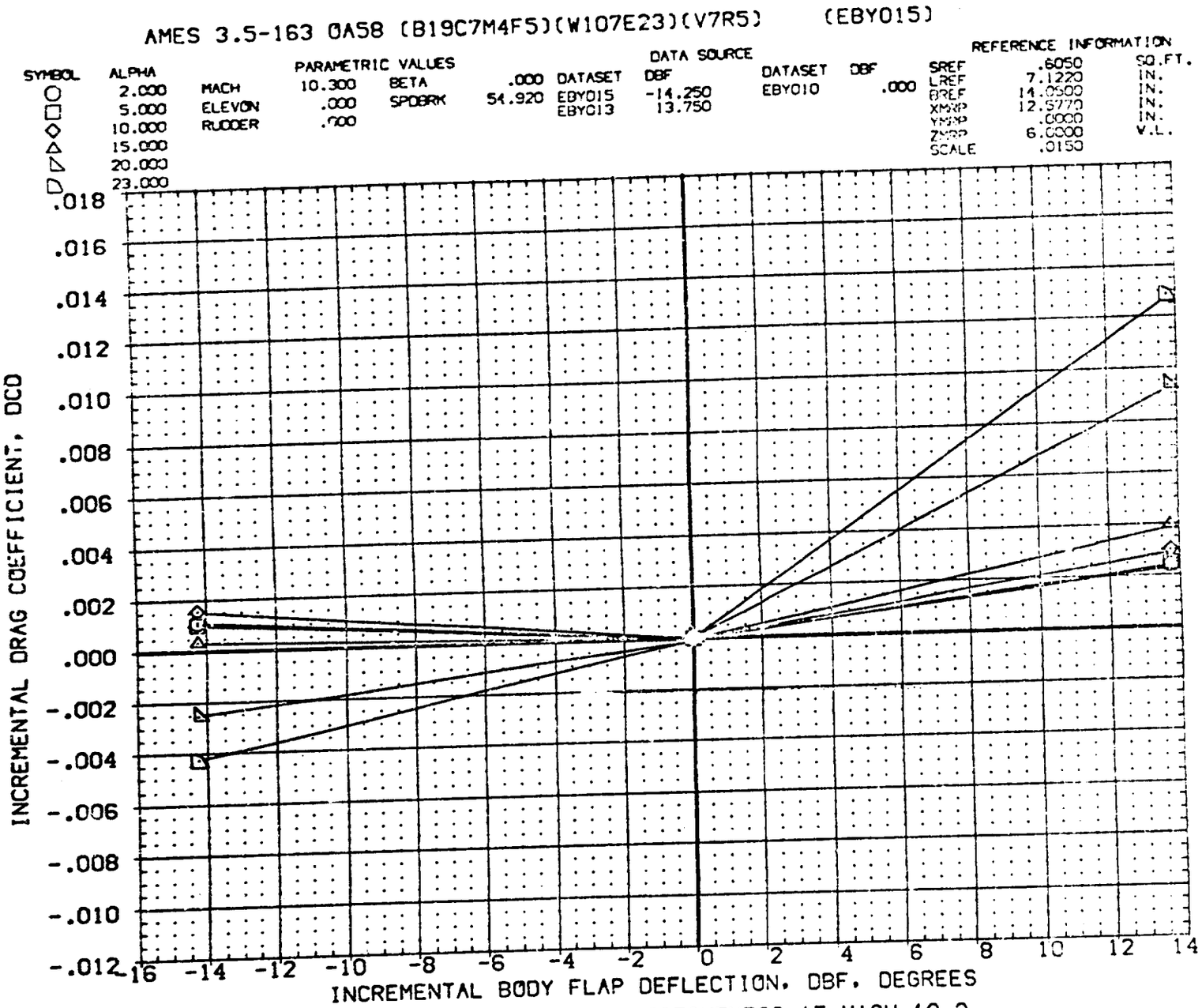


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

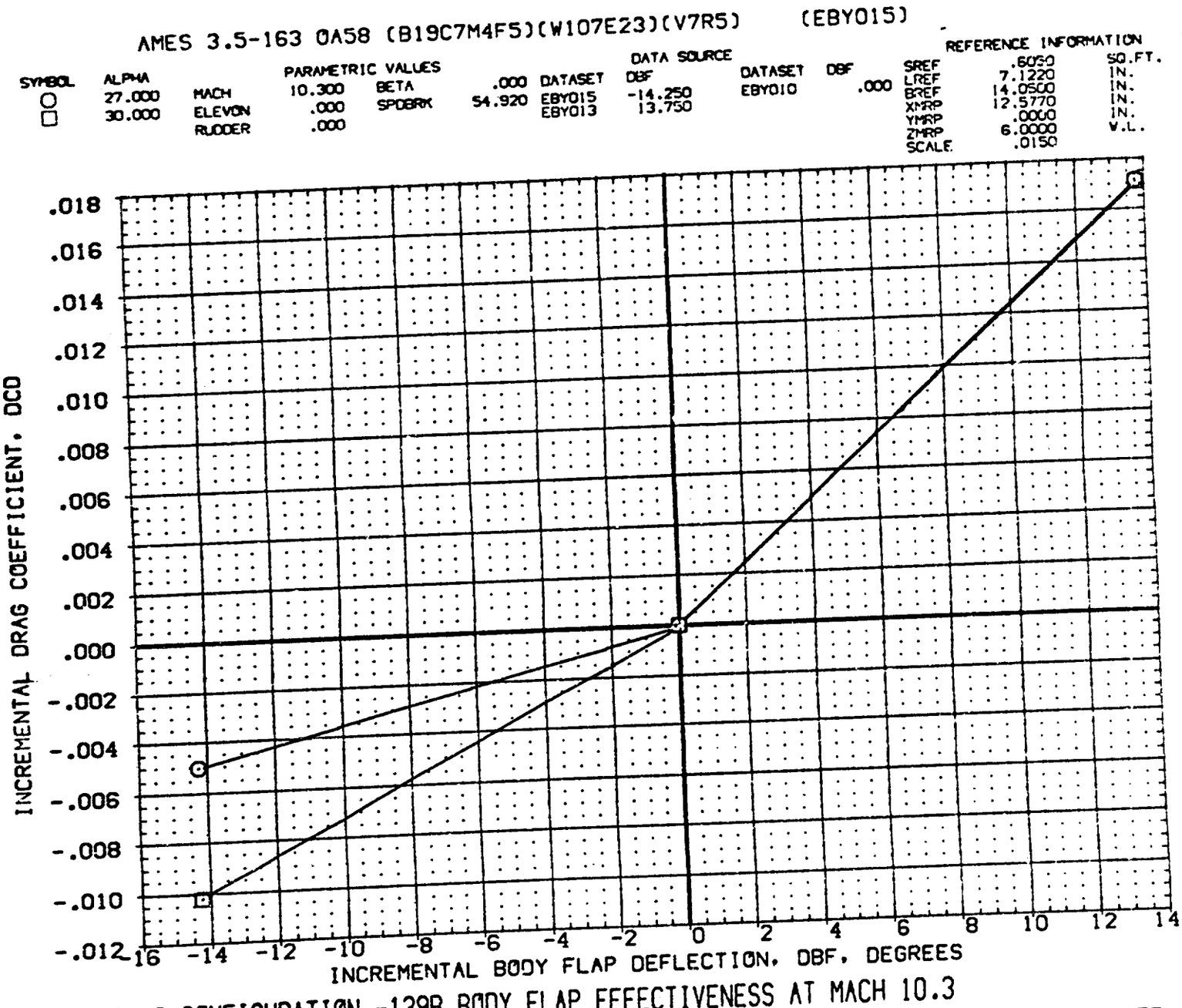


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA
○	2.000
□	5.000
◇	10.000
△	15.000
▷	20.000
⌂	23.000

PARAMETRIC VALUES

MACH	10.300	BETA	.000	
ELEVON	.000	SPOBRK	54.920	
RUDDER	.000			

DATA SOURCE

DATASET	DBF	DATASET	DBF		
EBY015	-14.250	EBY010	.000		
EBY013	13.750				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

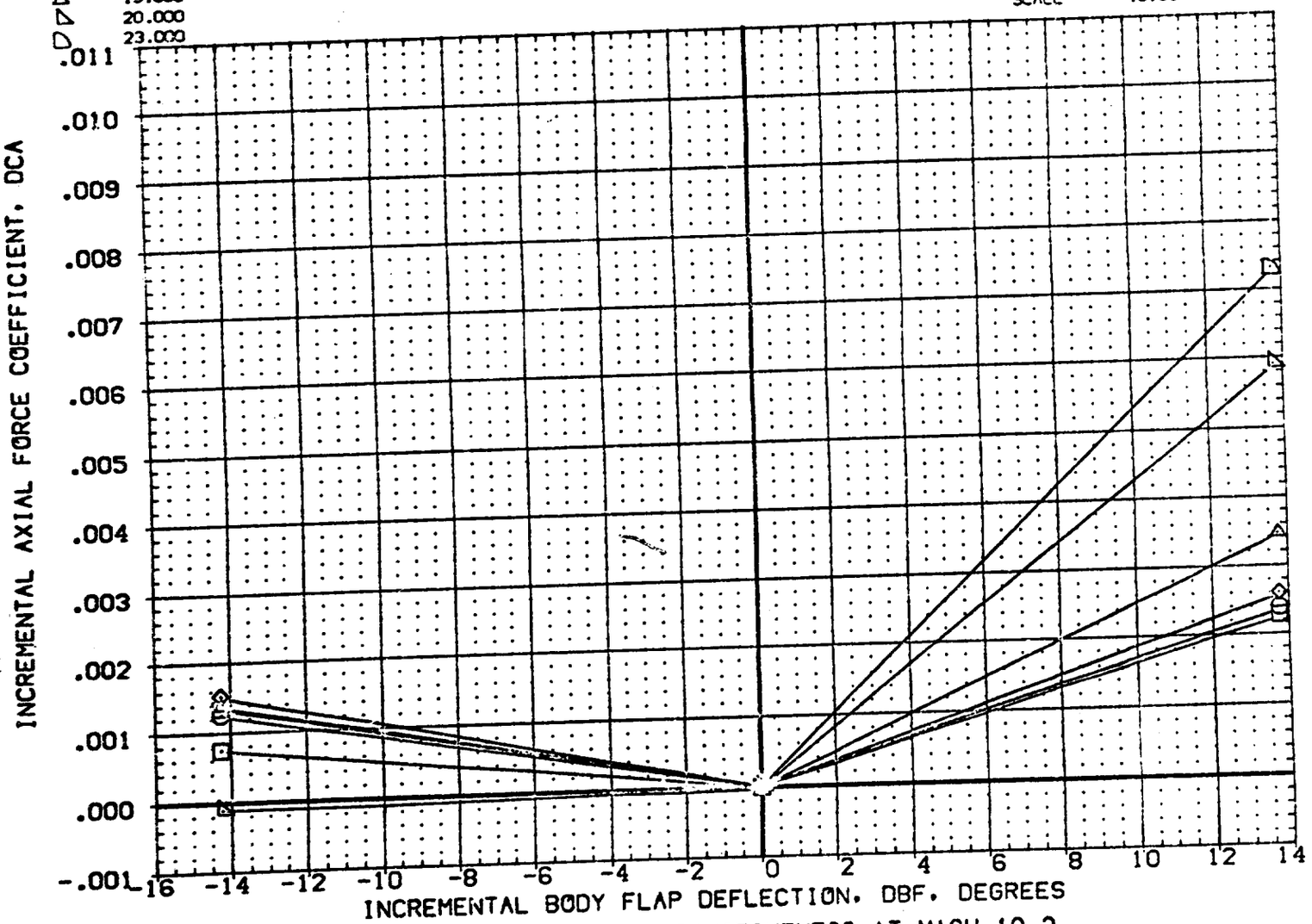


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	BETA	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	30.000	ELEVON	.000	SPOBRK	54.920	EBY015	-14.250	EBY010	.000	LREF	7.1220	IN.
		RUDDER	.000			EBY013	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

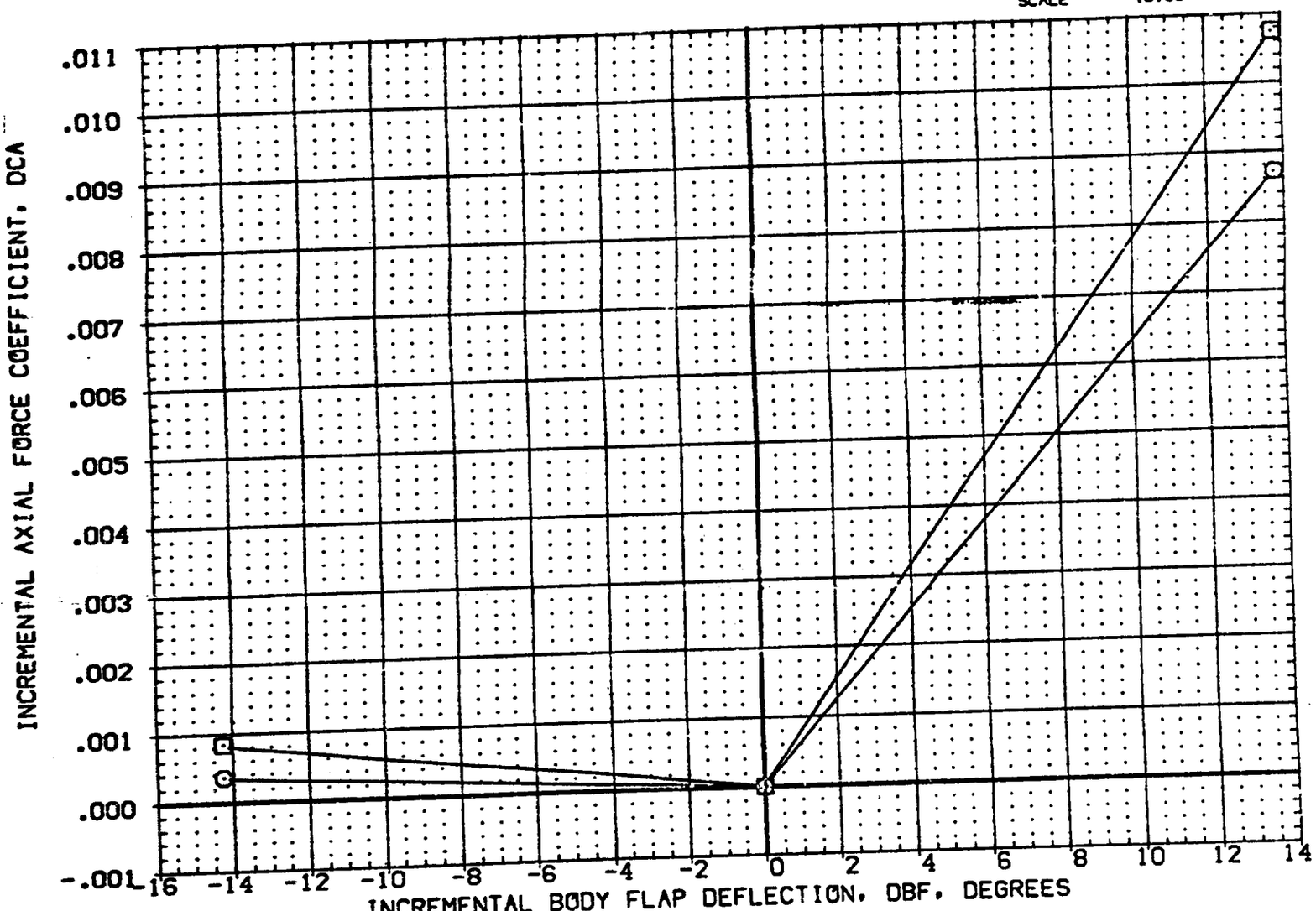


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

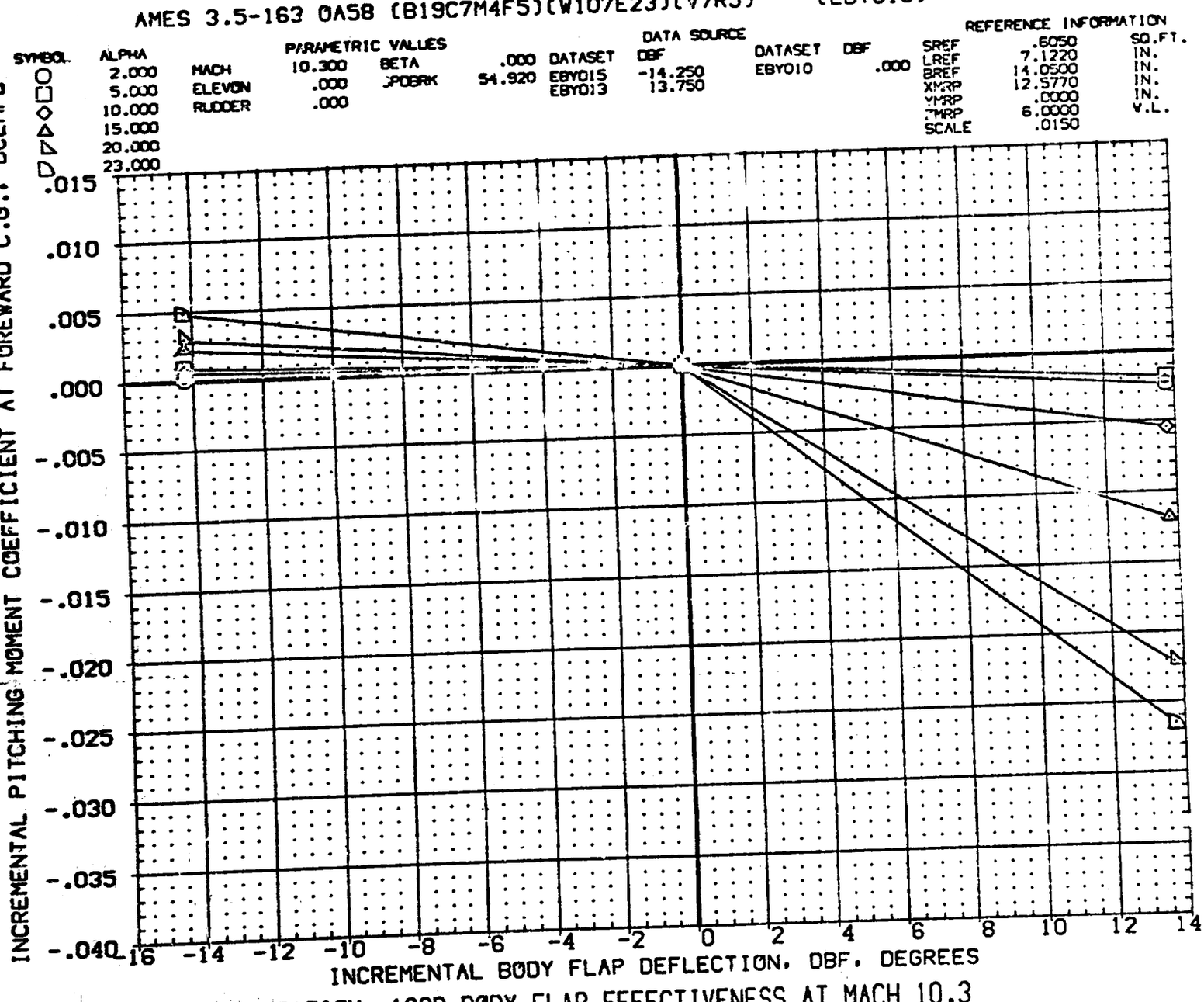


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

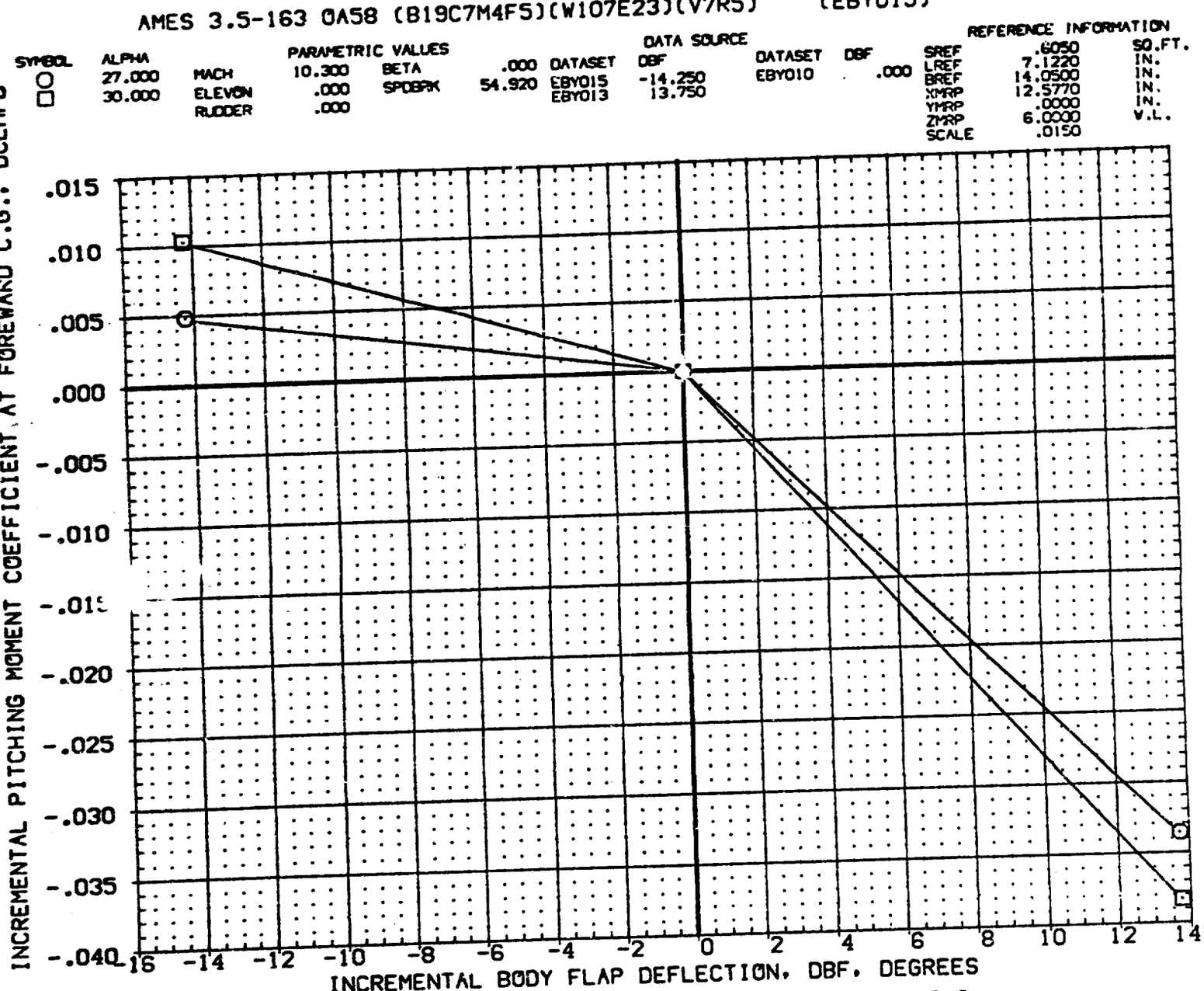


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			
	2.000	MACH	10.300	BETA	.000	DATASET	DBF	DATASET	DBF
	5.000	ELEVON	.000	SPOBRK	54.920	EBY015	-14.250	EBY010	.000
	10.000	RUDDER	.000			EBY013	13.750		
	15.000								
	20.000								
	23.000								

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

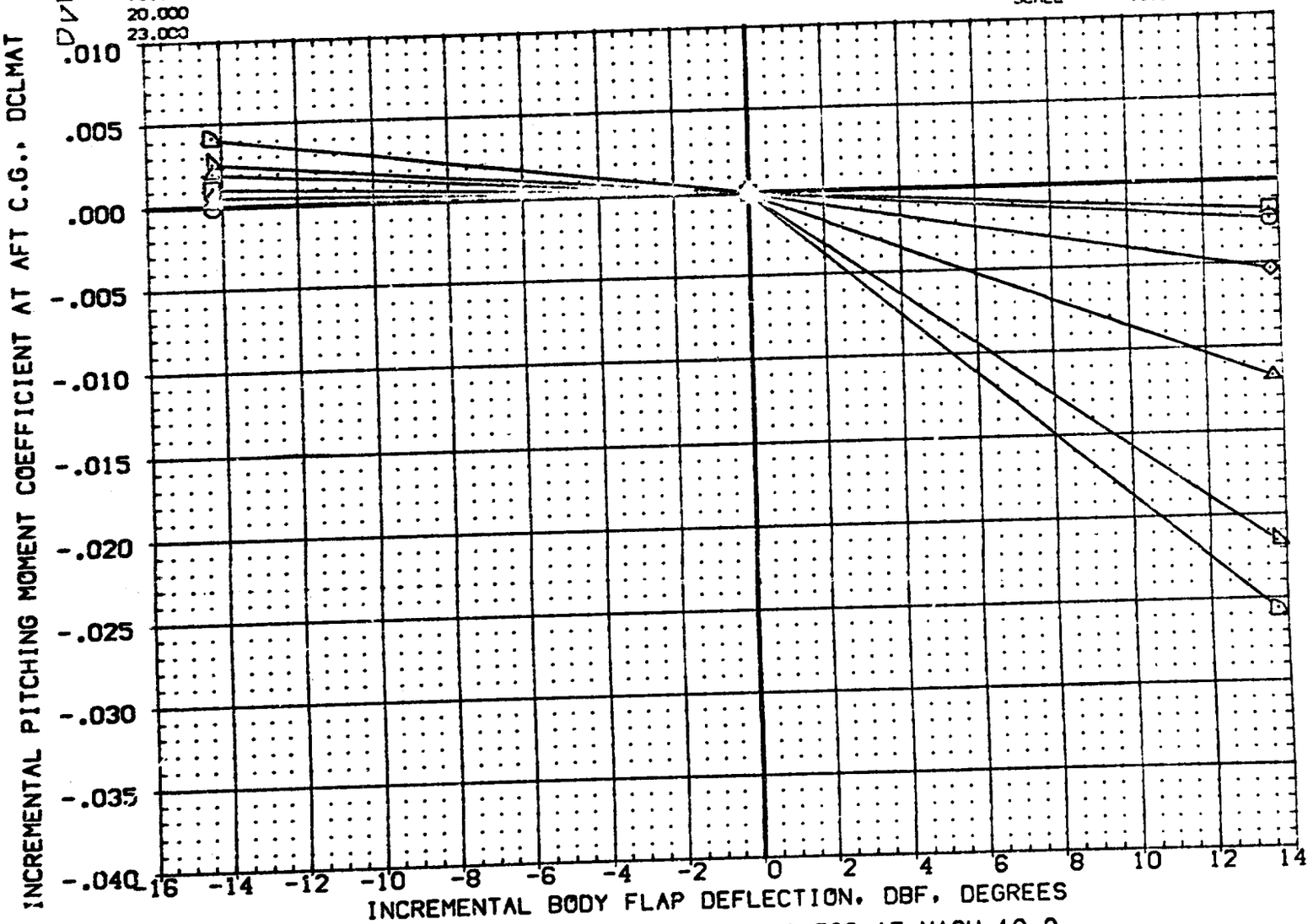


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B19C7M4F5)(W107E23)(V7R5) (EBY015)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE				
□	27.000	MACH	10.300	BETA	.000	DATASET	DBF	DATASET	DBF
○	30.000	ELEVON	.000	SPDBRK	54.920	EBY015	-14.250	EBY010	.000
		RUDDER	.000			EBY013	13.750		

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

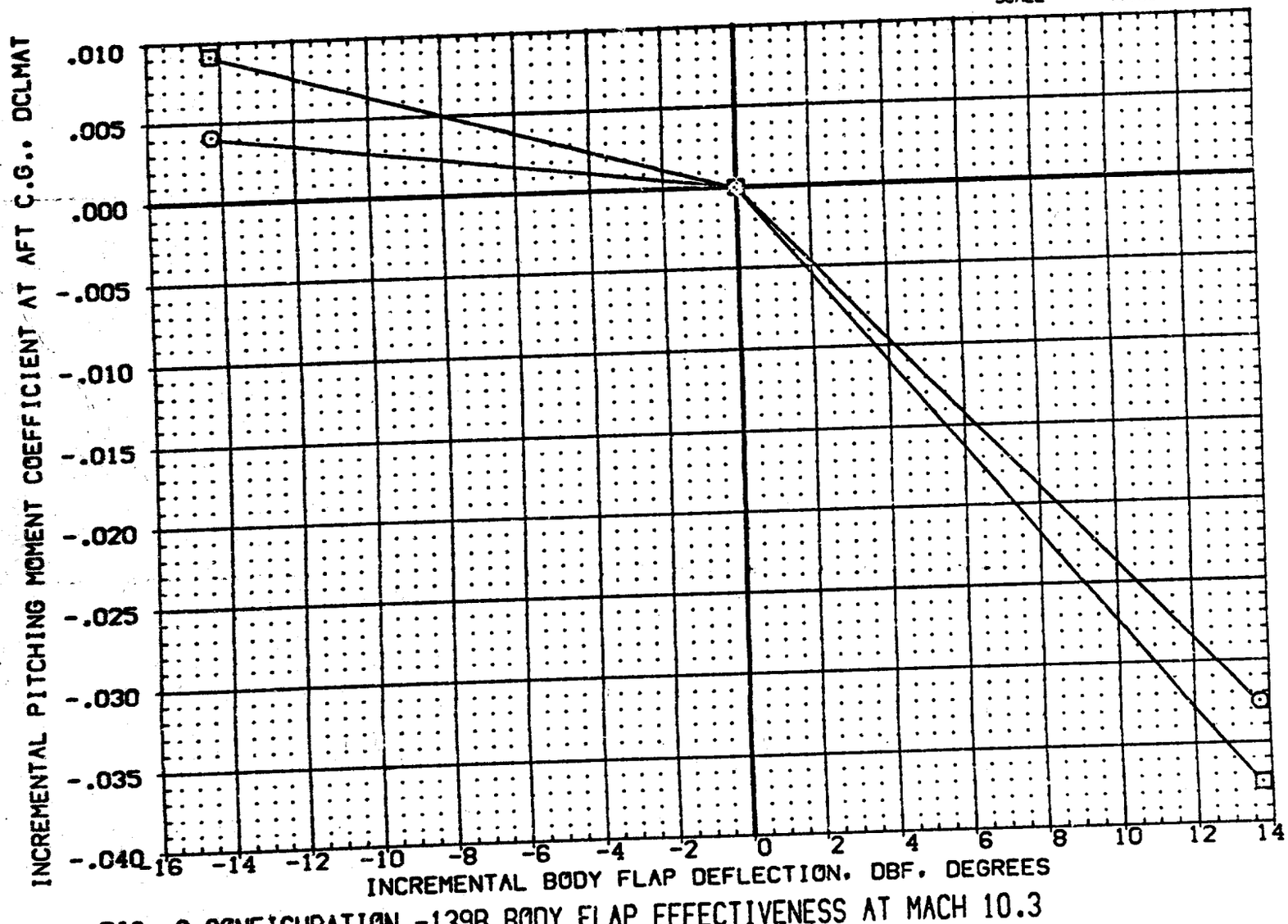


FIG. 8 CONFIGURATION -139B BODY FLAP EFFECTIVENESS AT MACH 10.3

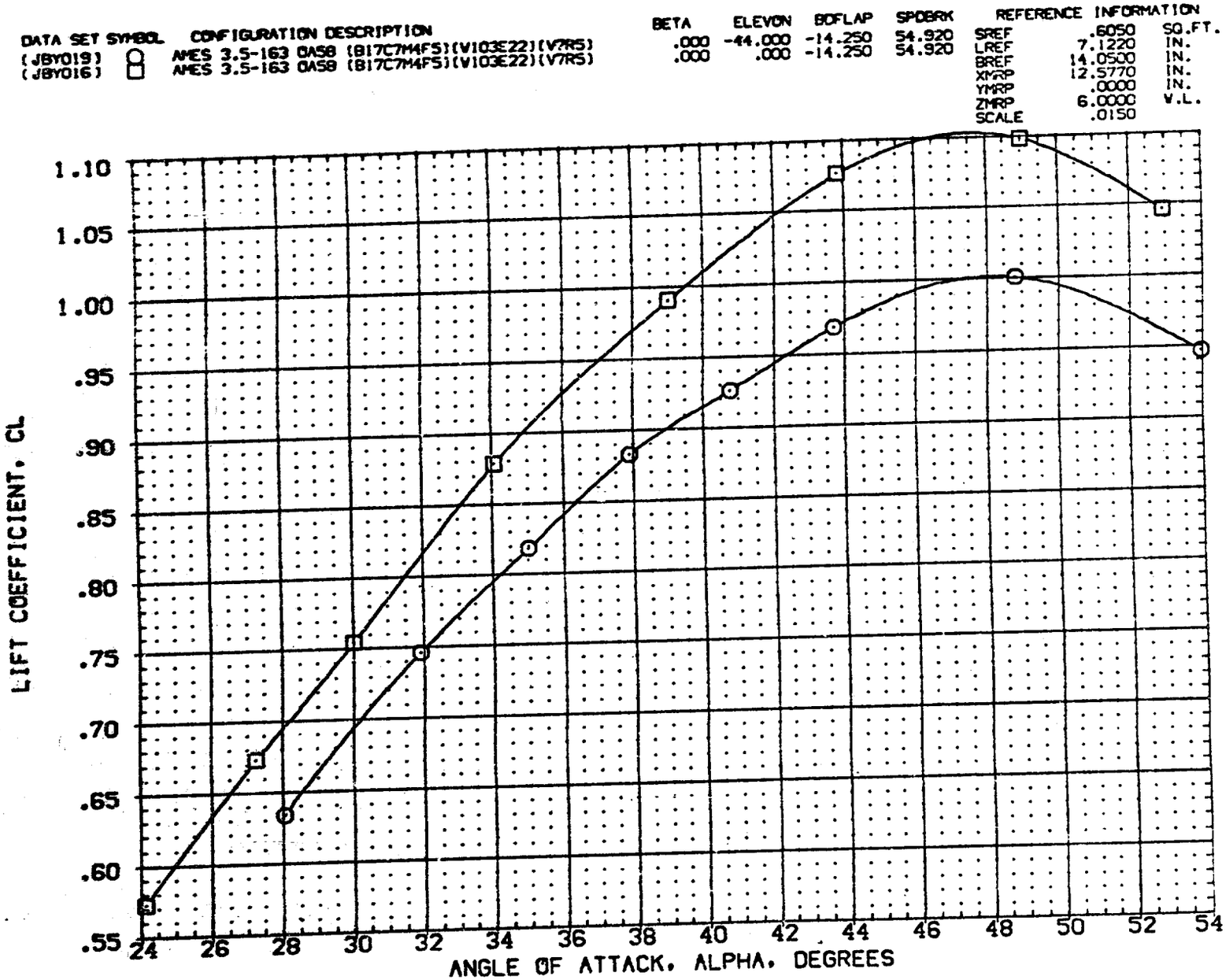


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019) ○	AMES 3.5-163 BASE (B17C7H4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016) □	AMES 3.5-163 BASE (B17C7H4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

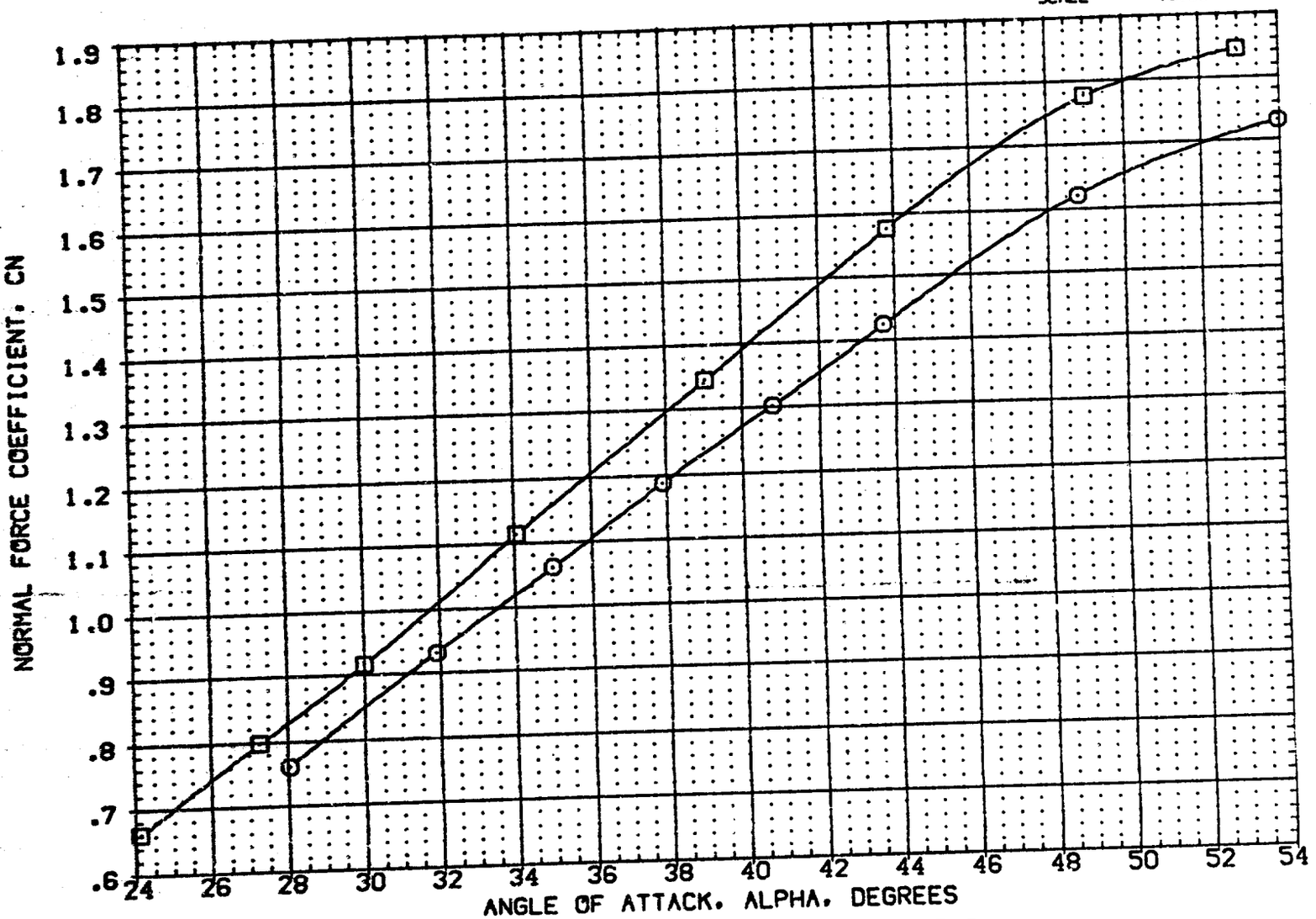


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(JBYD19)	8	AMES 3.5-163 DA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBYD16)	8	AMES 3.5-163 DA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

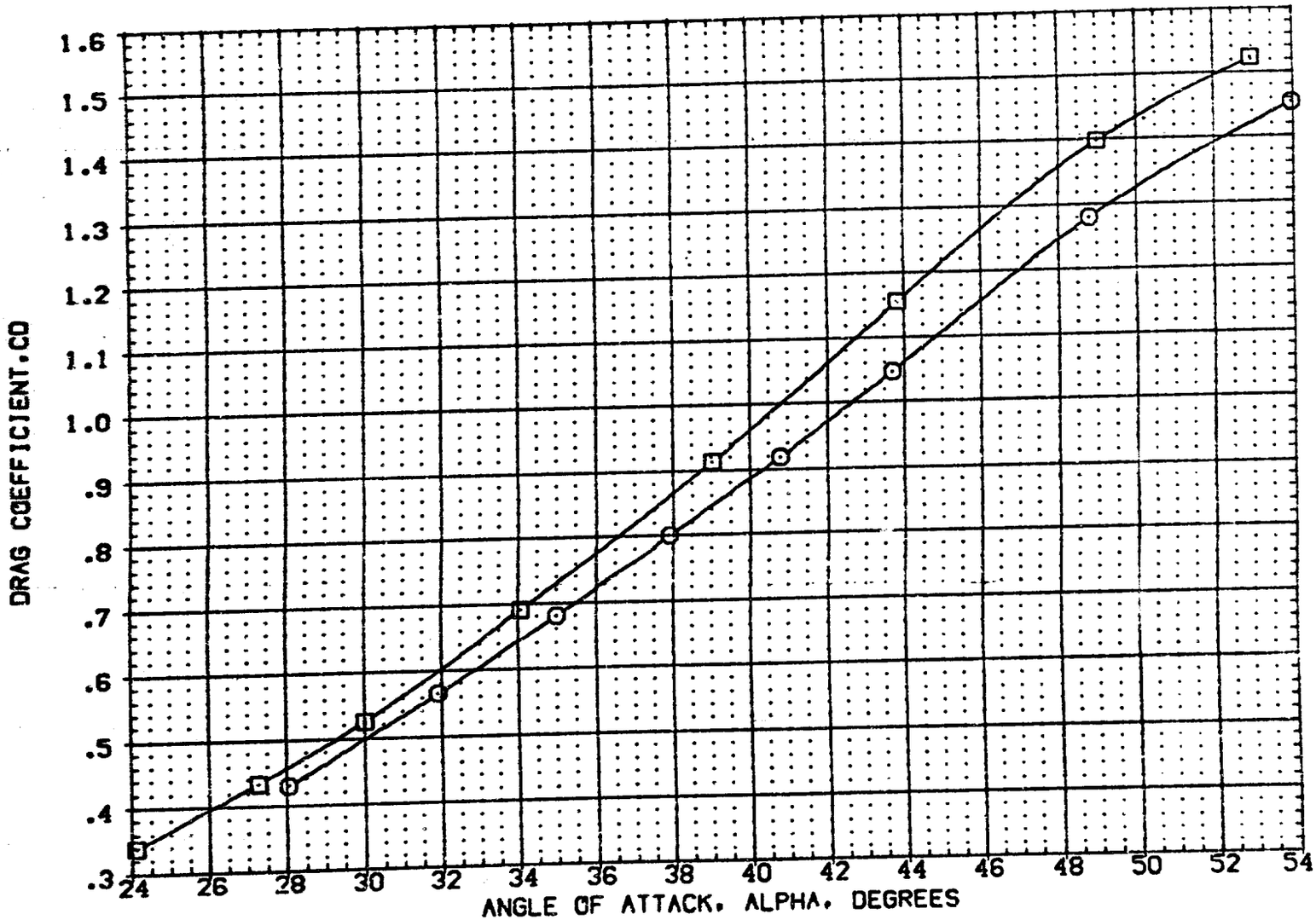


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

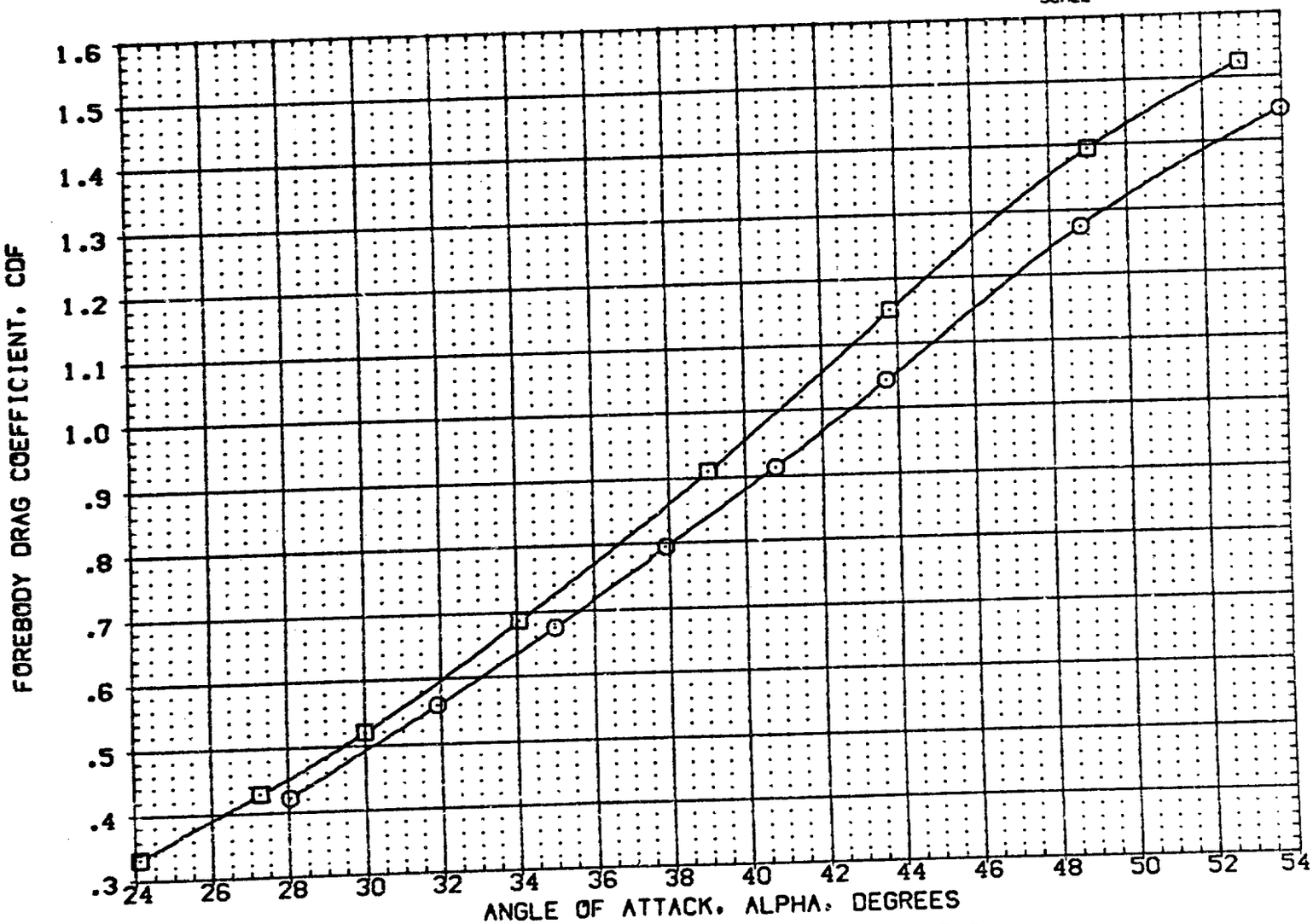


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBYO19)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBYO16)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	M.L.
SCALE	.0150	

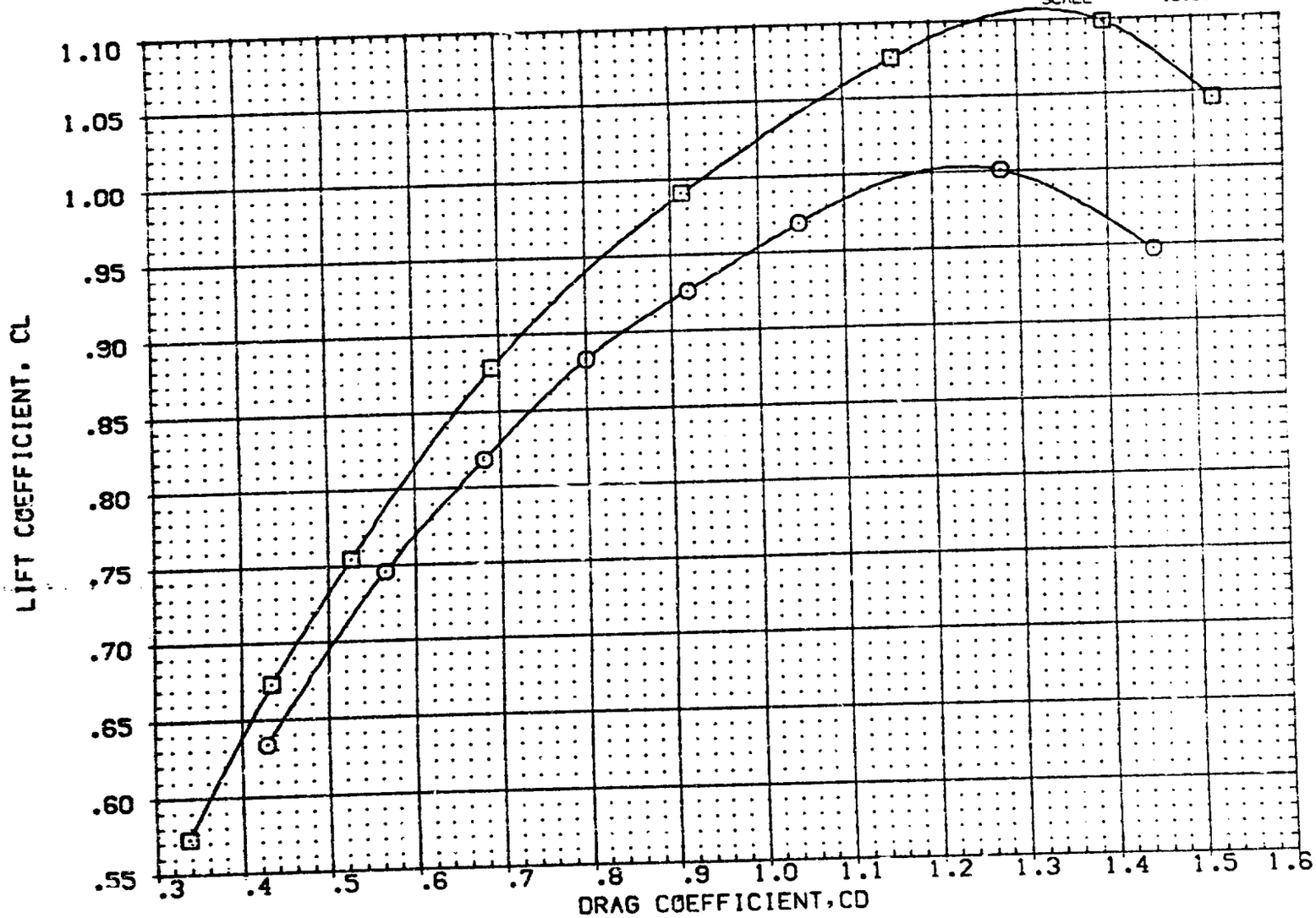


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(JBY019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

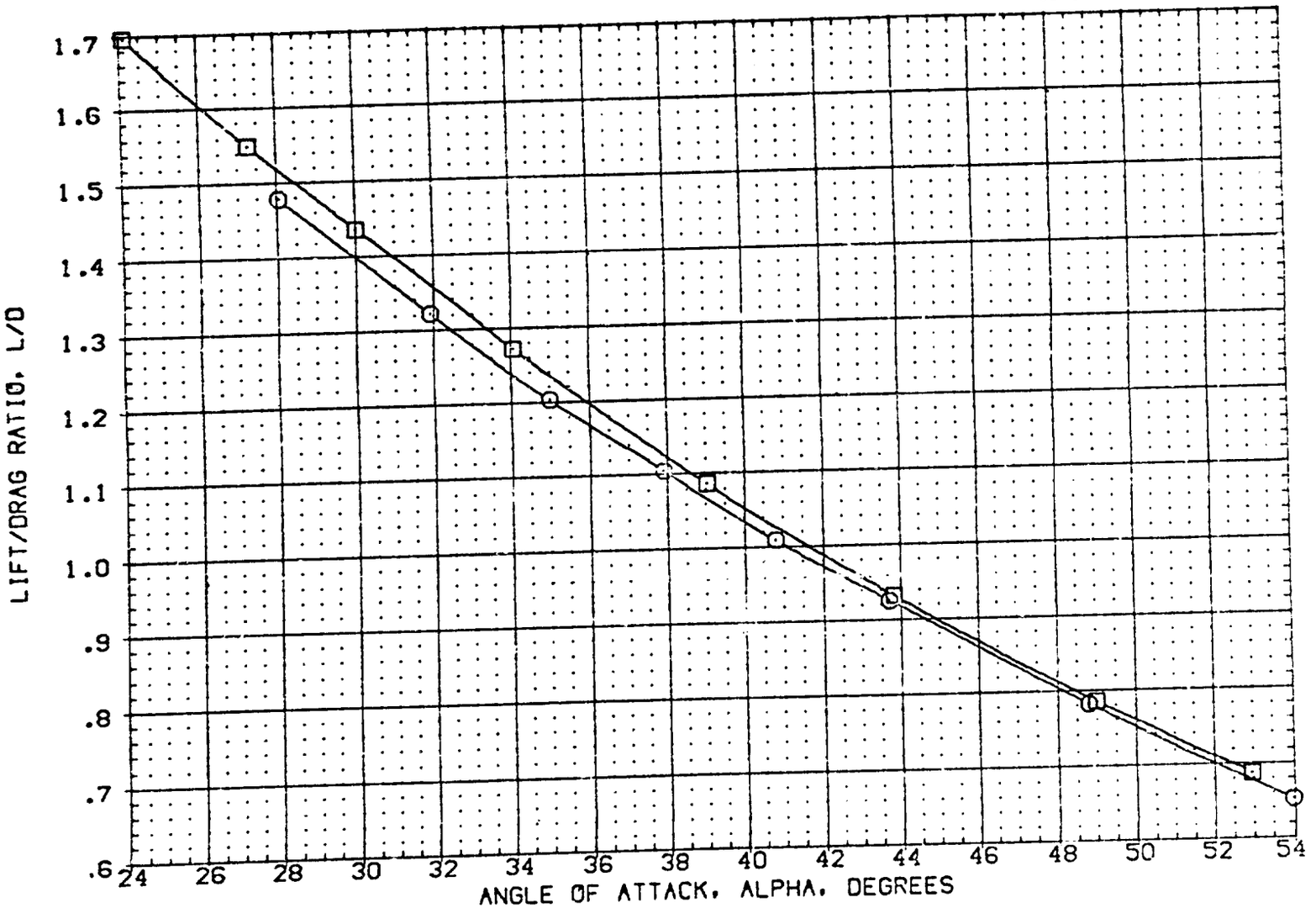


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.3770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

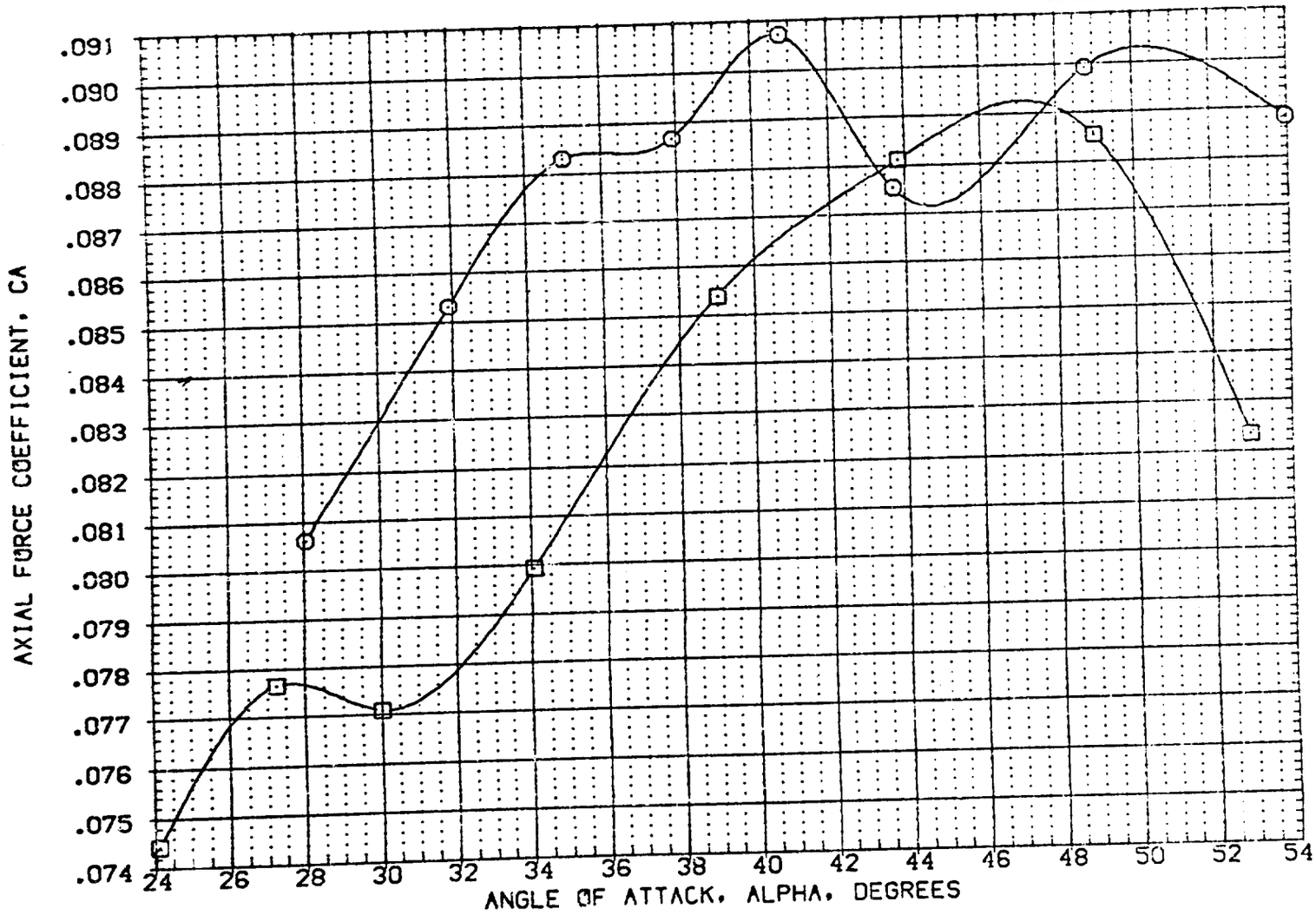


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019)	AMES 3.5-163 CASB (B17C7M4FS)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)	AMES 3.5-163 OASB (B17C7M4FS)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

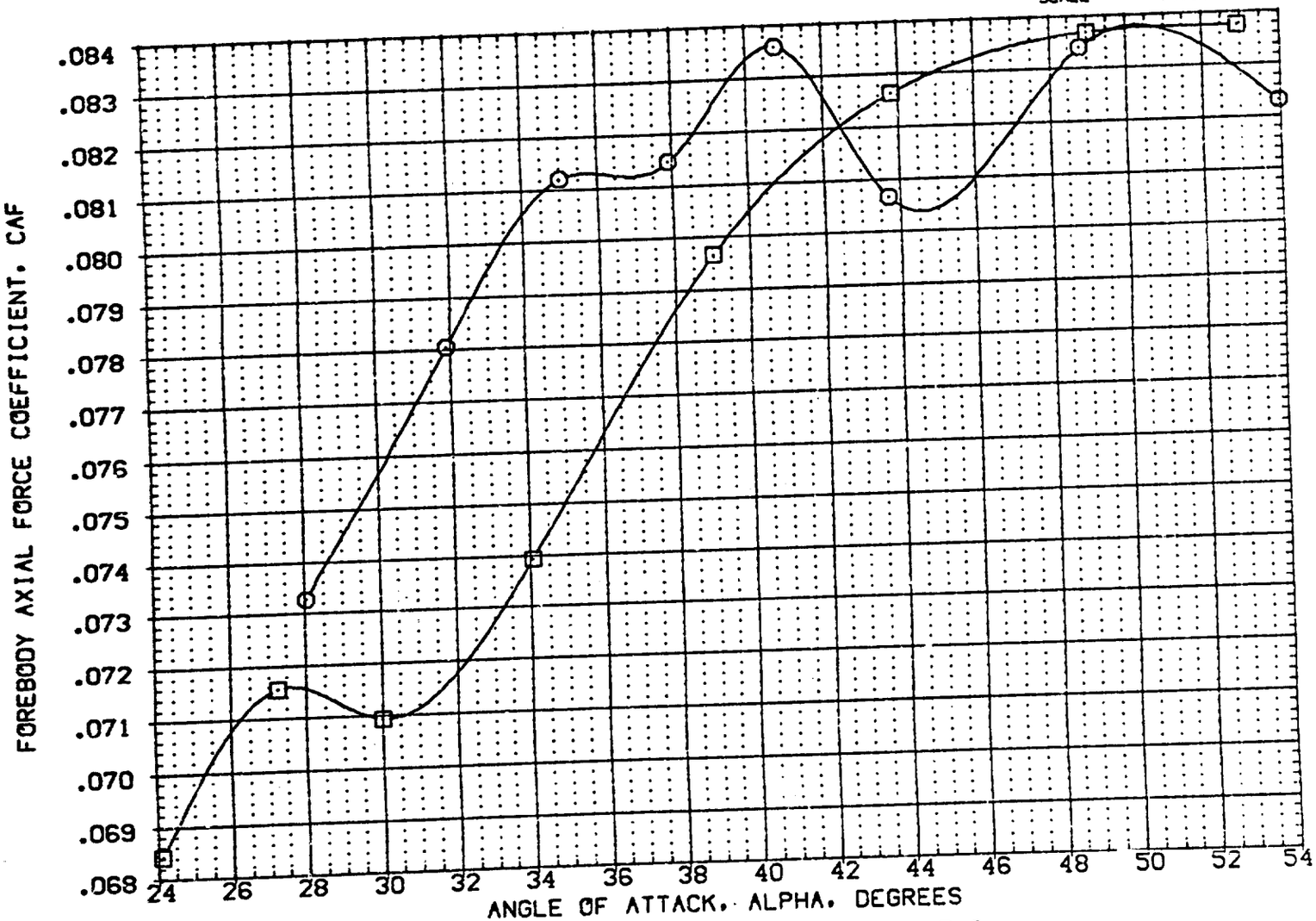


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019)	AMES 3.5-163 0A58 (B17C7H4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)	AMES 3.5-163 0A58 (B17C7H4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

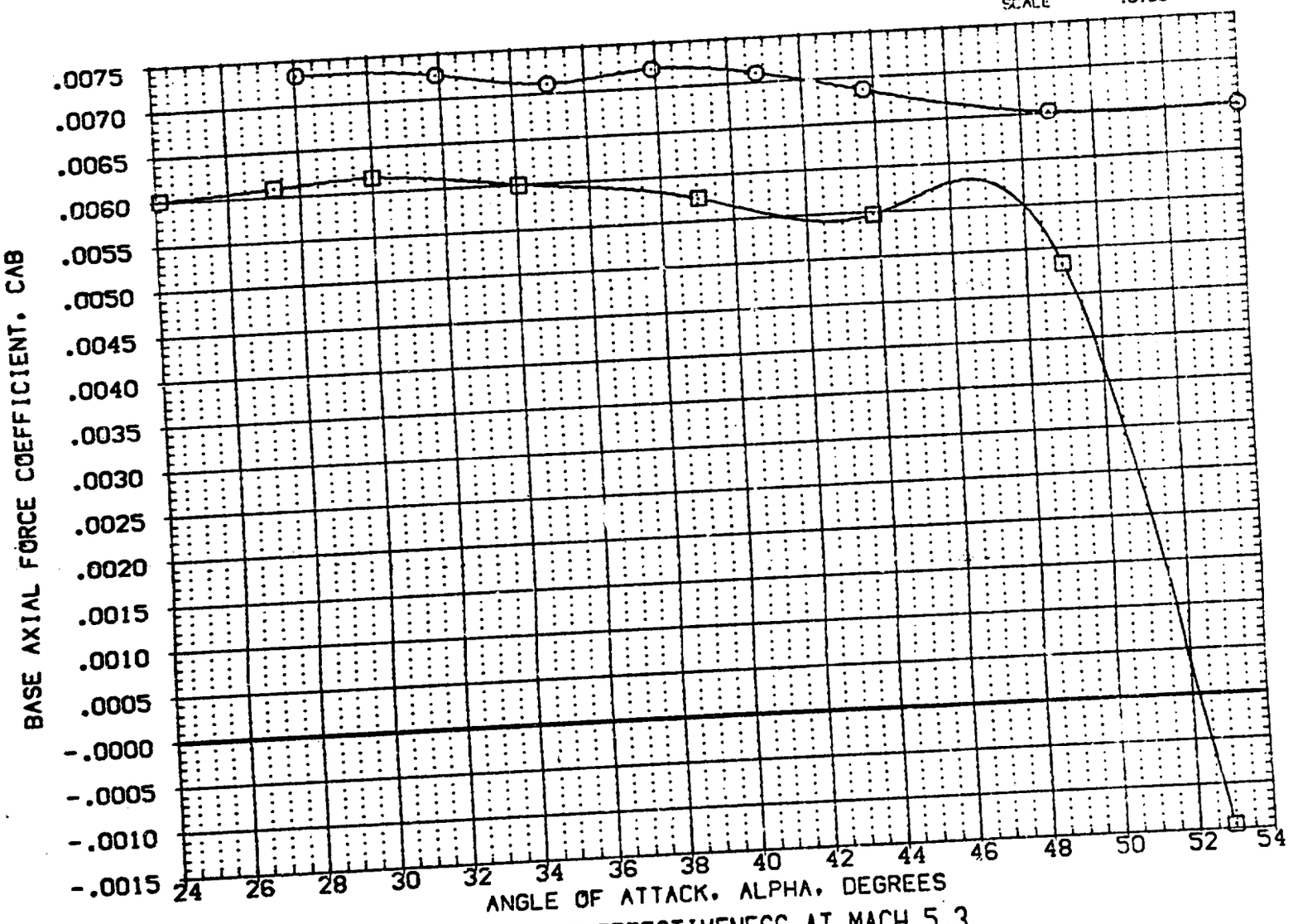


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

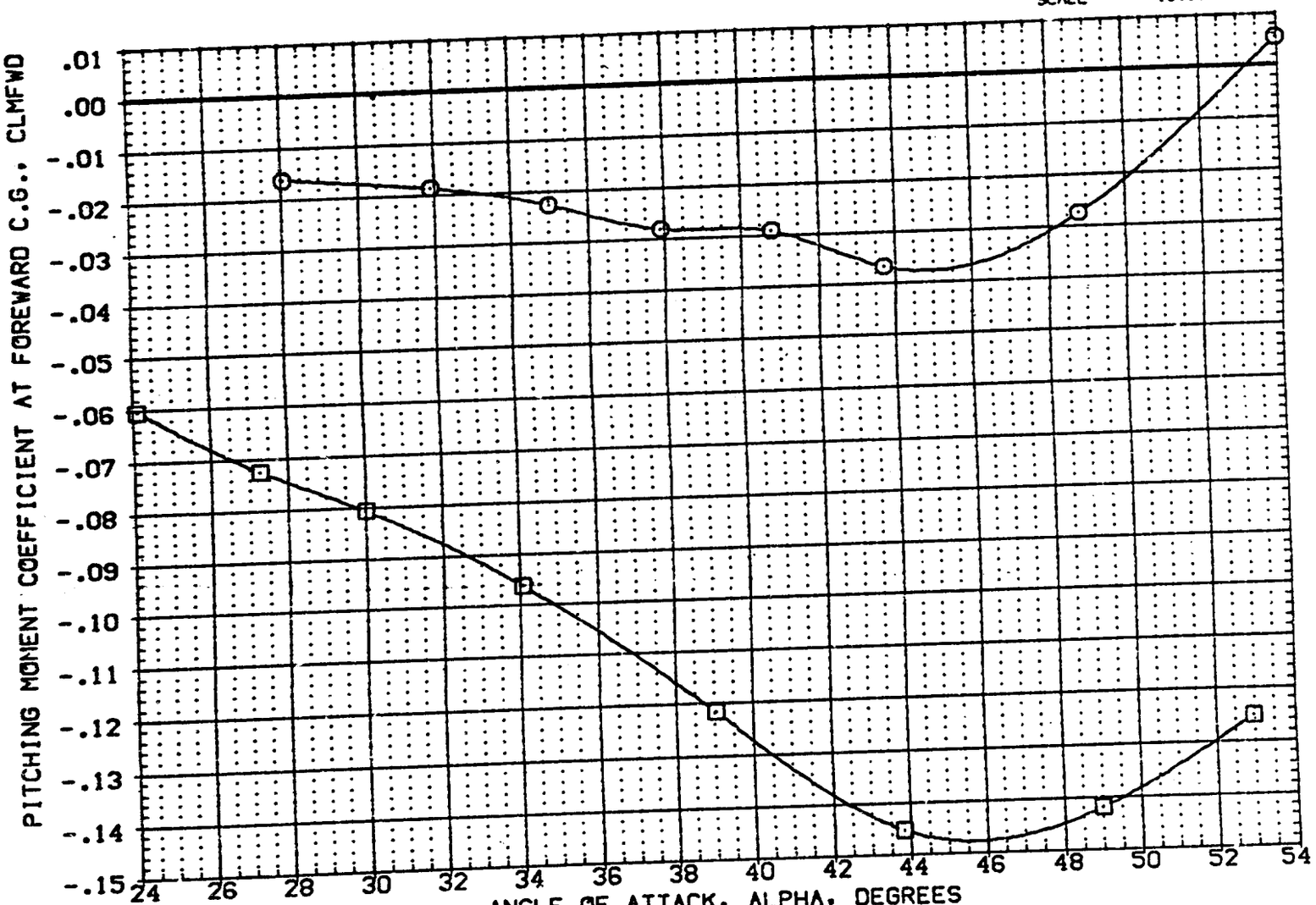


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBY013) ○	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016) □	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

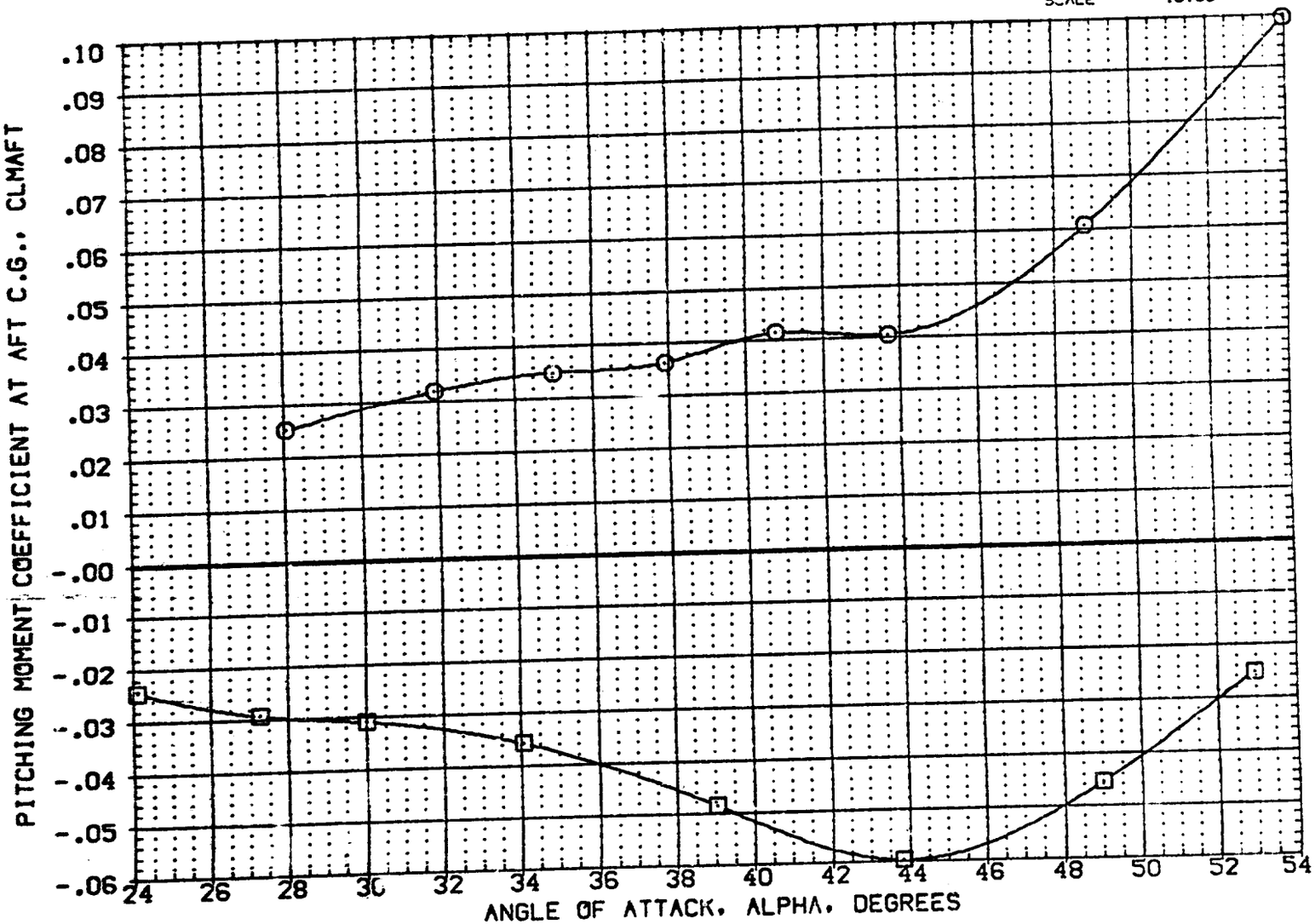


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(JBY019)		AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBY016)		AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

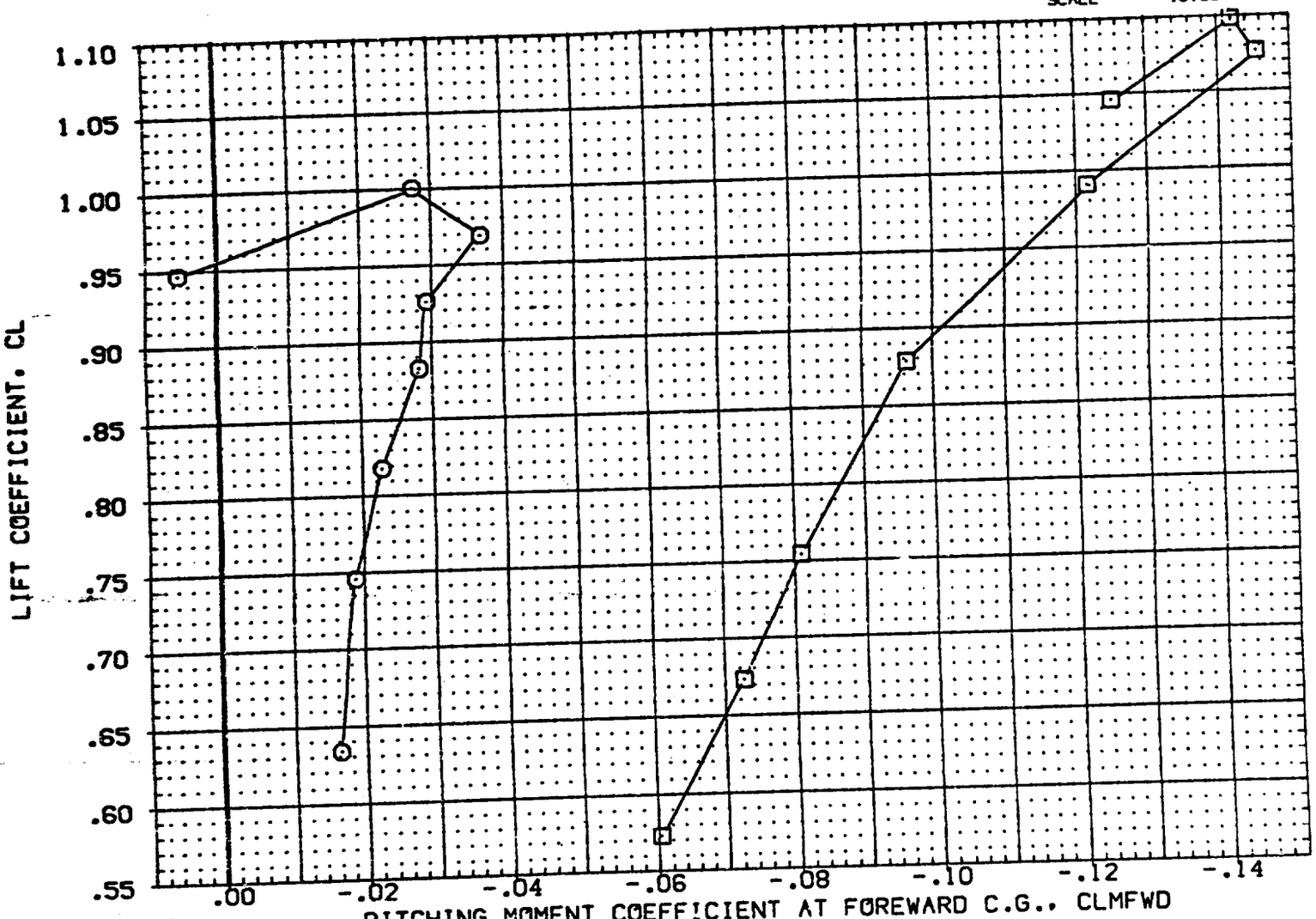


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(JBYO19)	AMES 3.5-163 GA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.230	54.920
(JBYO16)	AMES 3.5-163 GA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

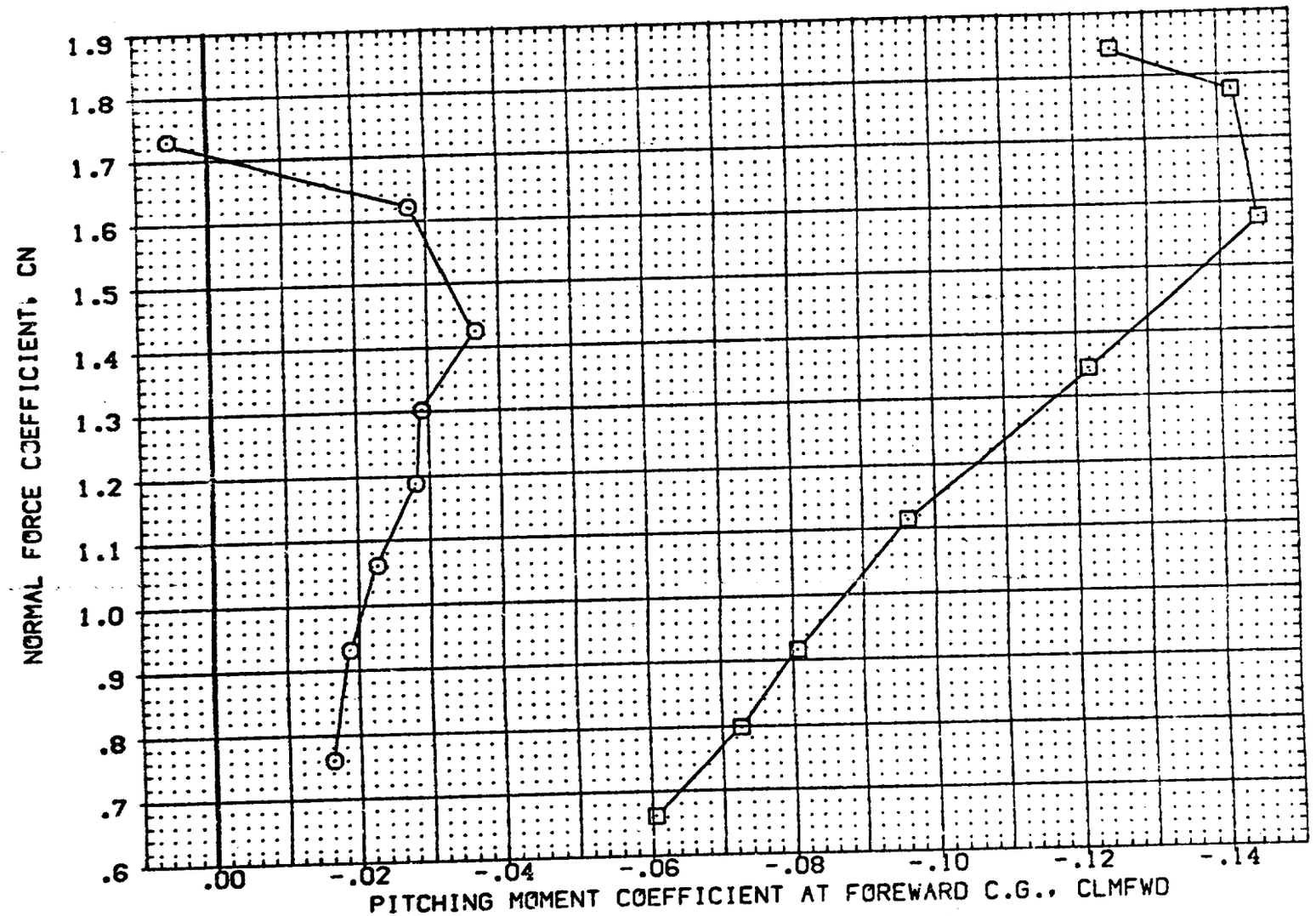


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(JBYJ19)	8	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(JBYJ16)	8	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

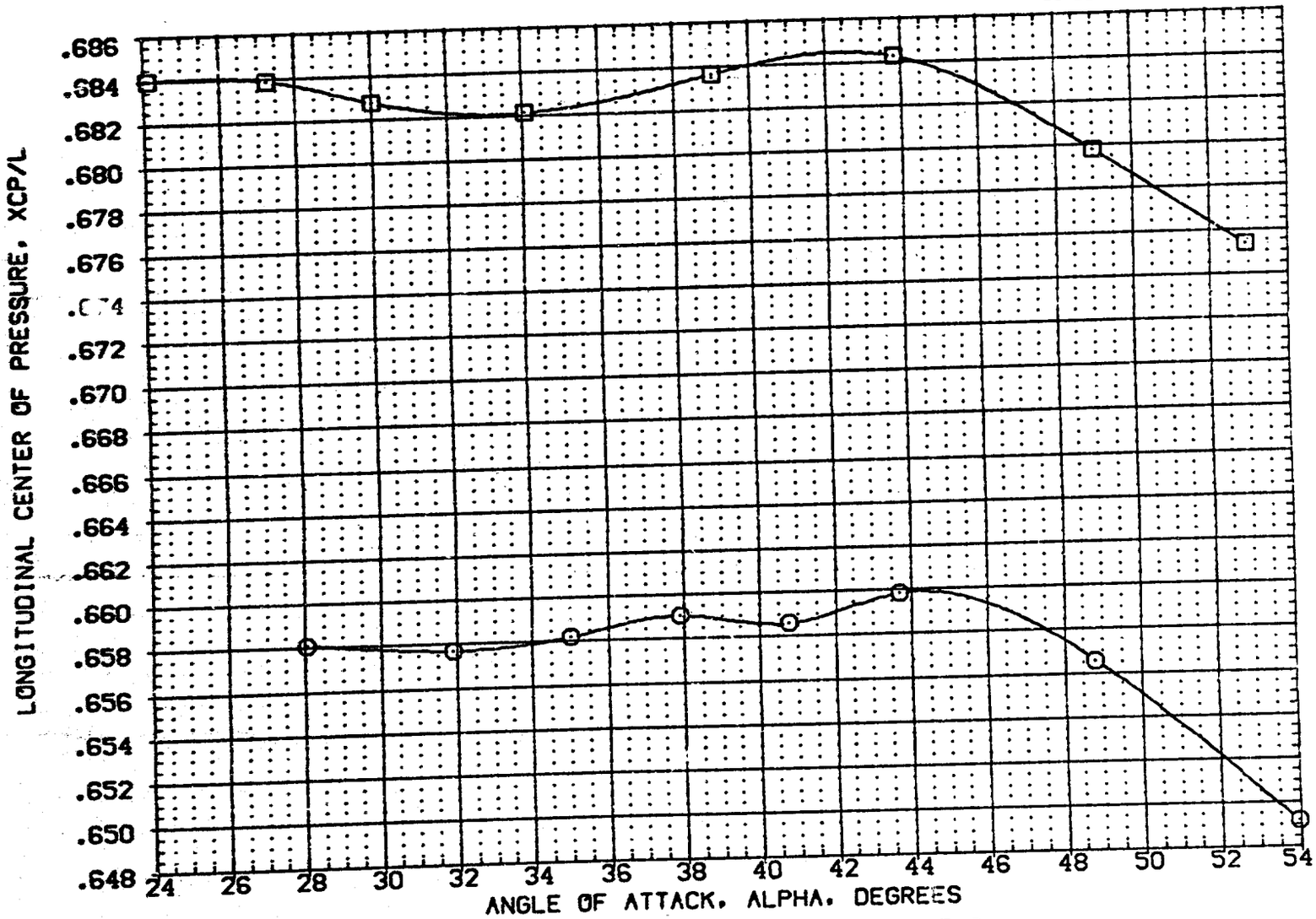


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(GBY019) ○	AMES 3.5-163 BASB (B17C7H4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

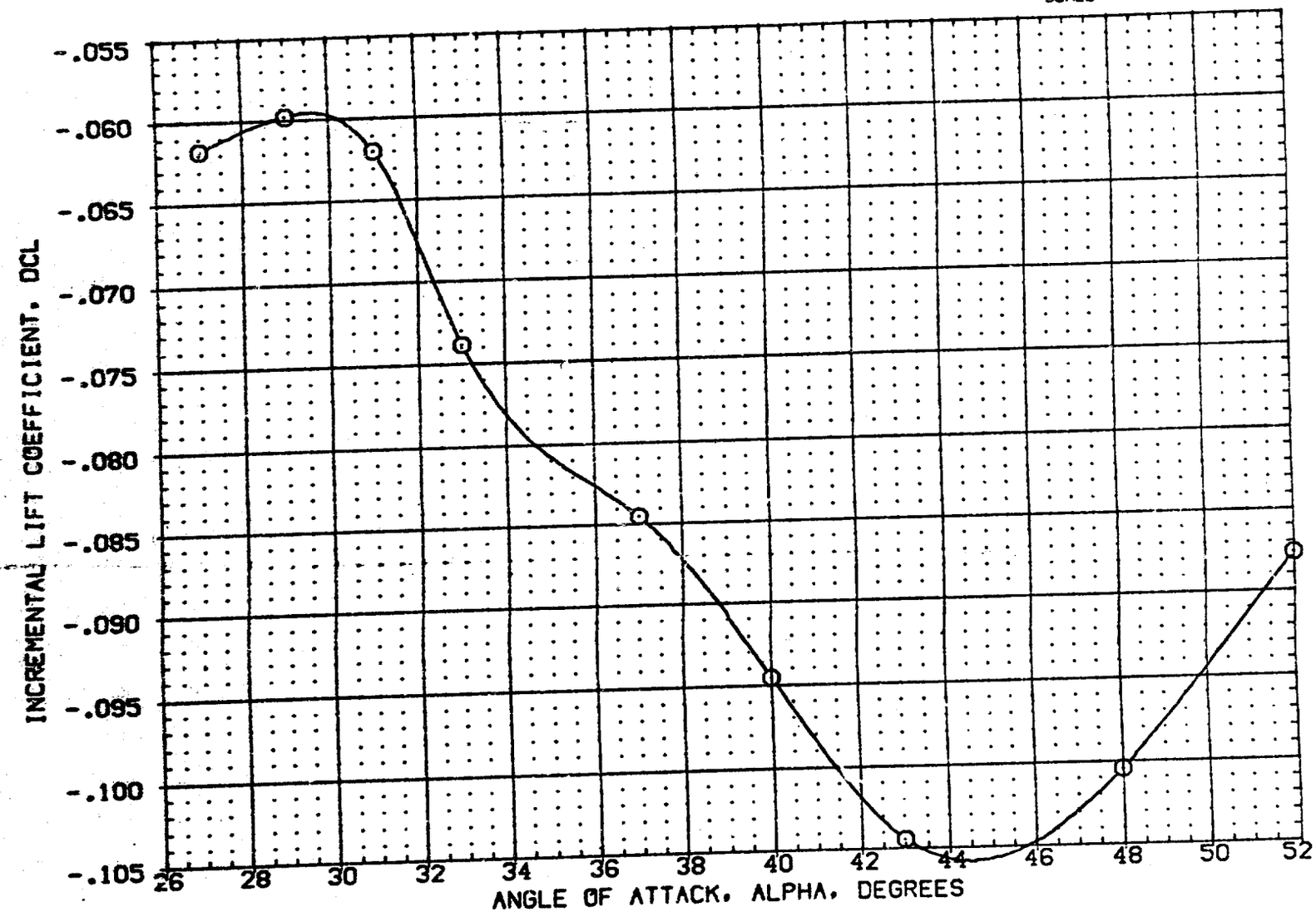


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY019) O	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

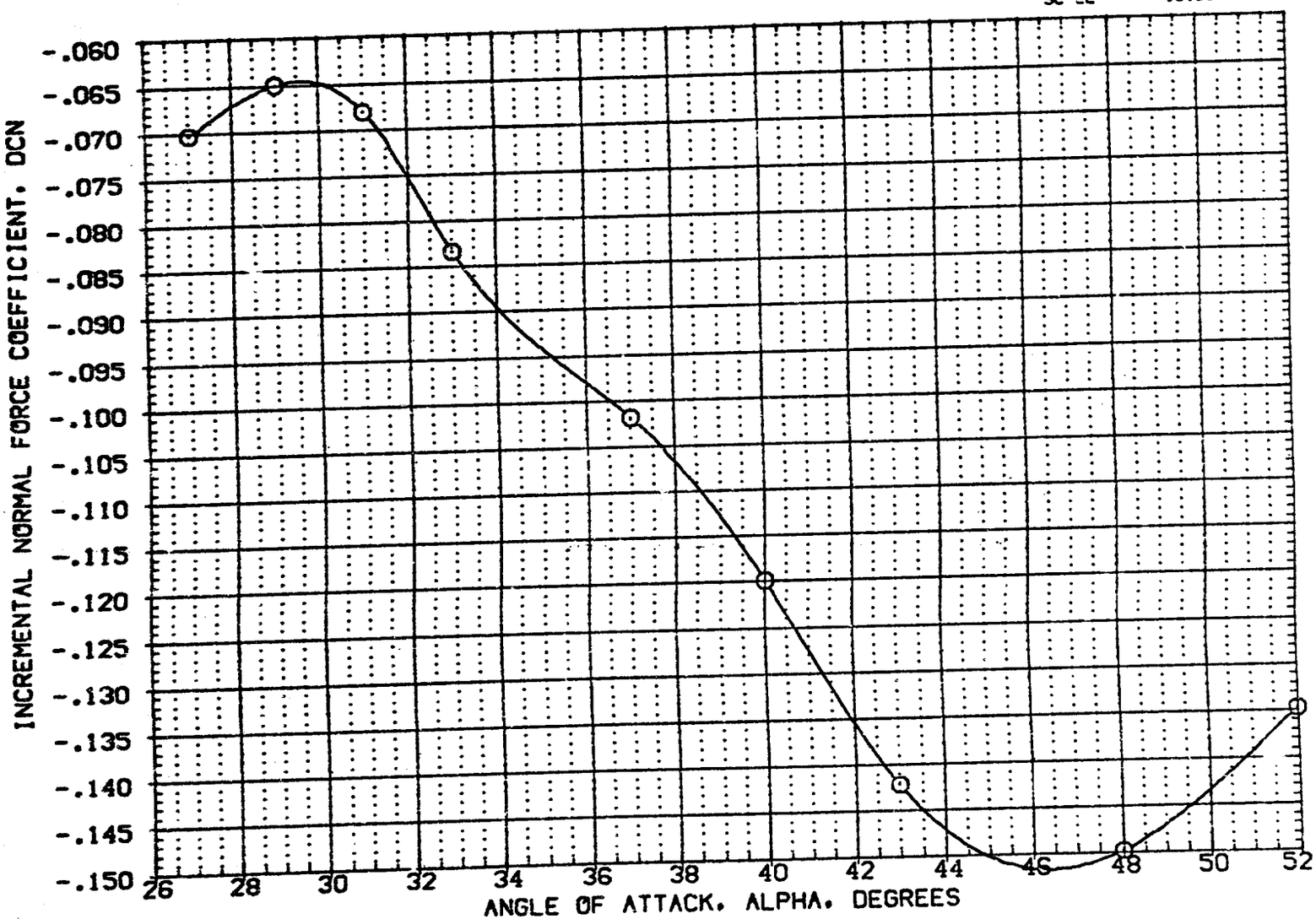


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY019) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.1050	SQ.FT.
LREF	7.220	IN.
BREF	14.500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

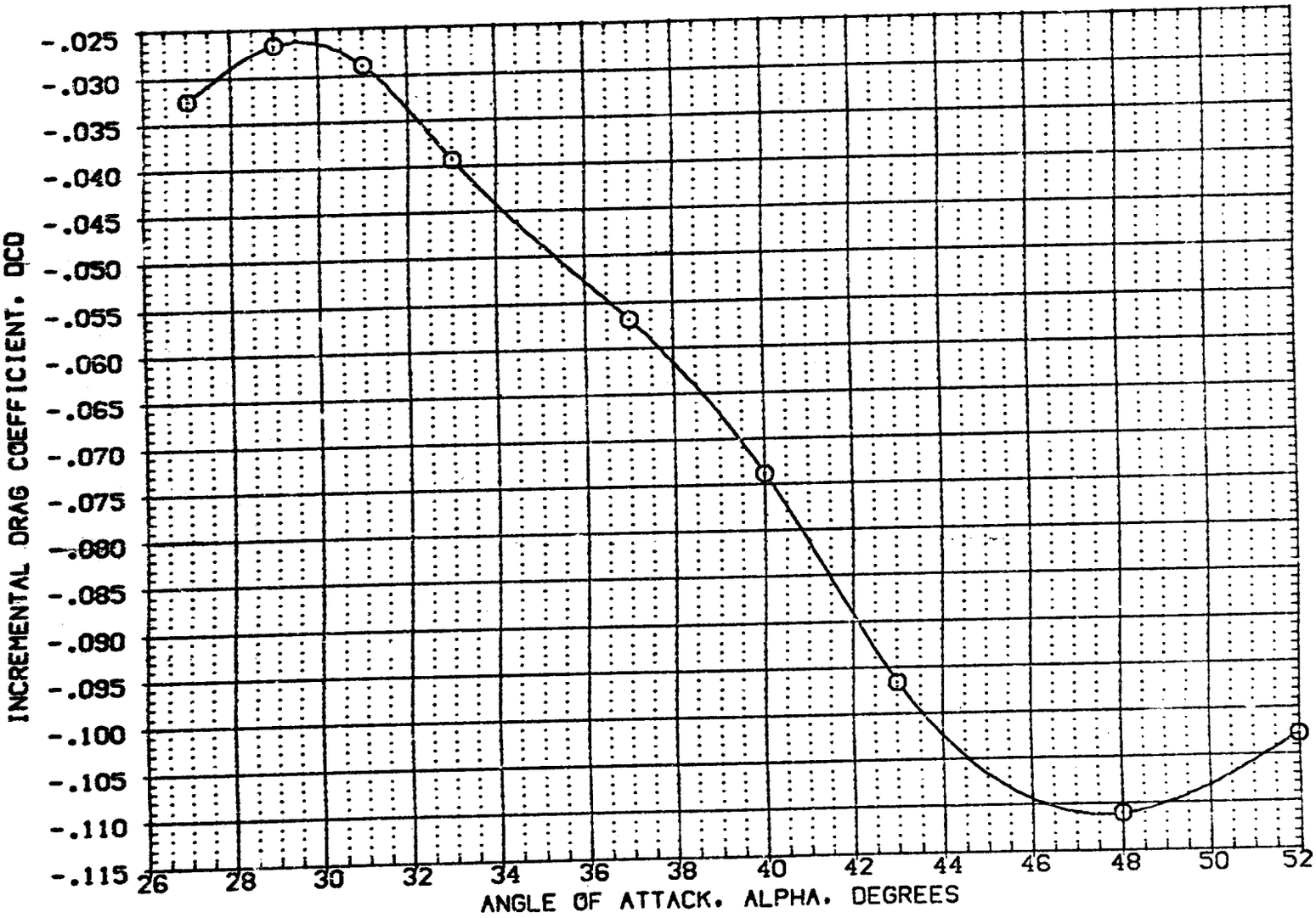


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(GBY019) ○ AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)

BETA	DE	BDFLAP	SPDBRK
.000	-44.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

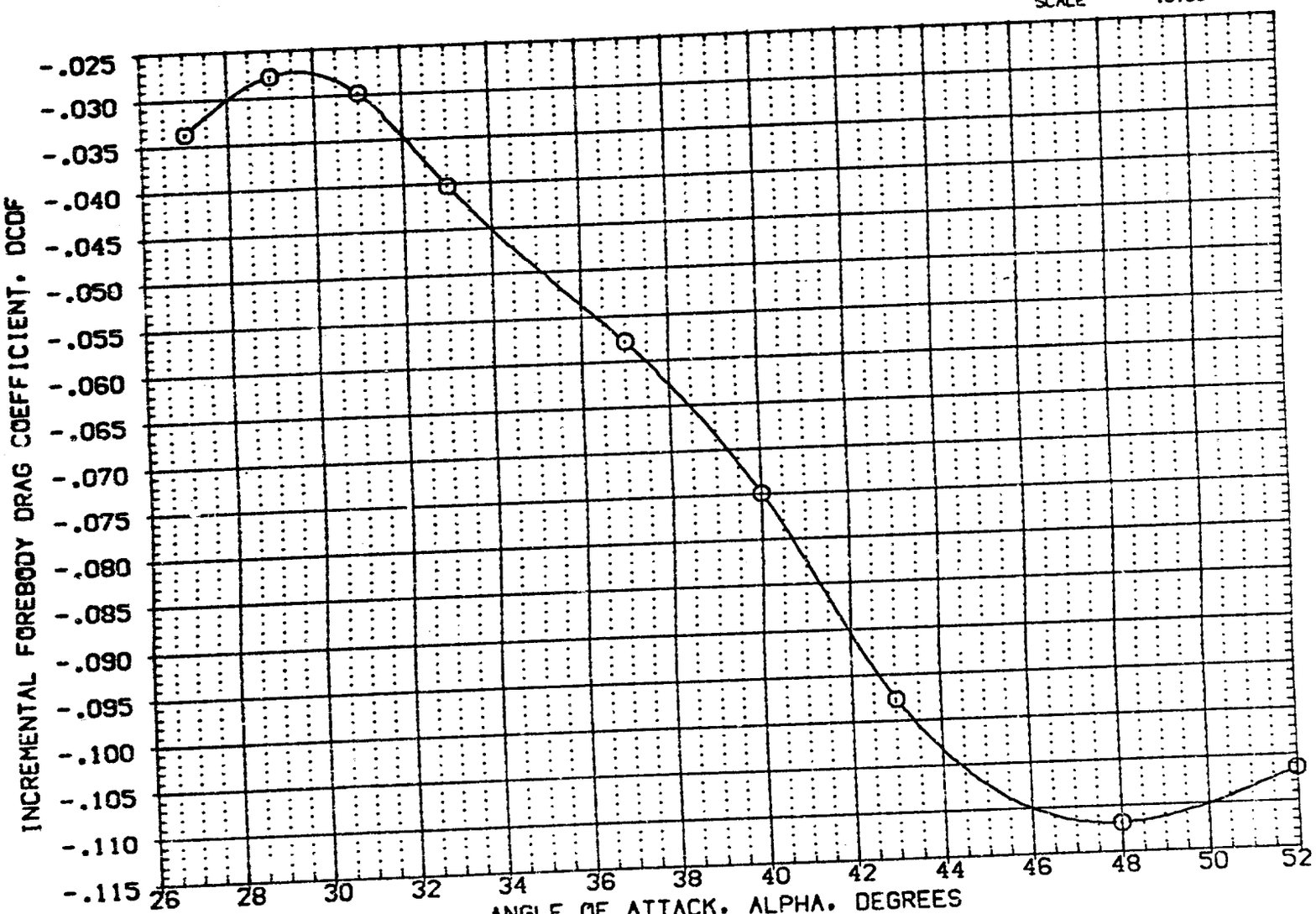


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(GBY019) ○ AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)

BETA	DE	BOFLAP	SPOBRK
.000	-44.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0530	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

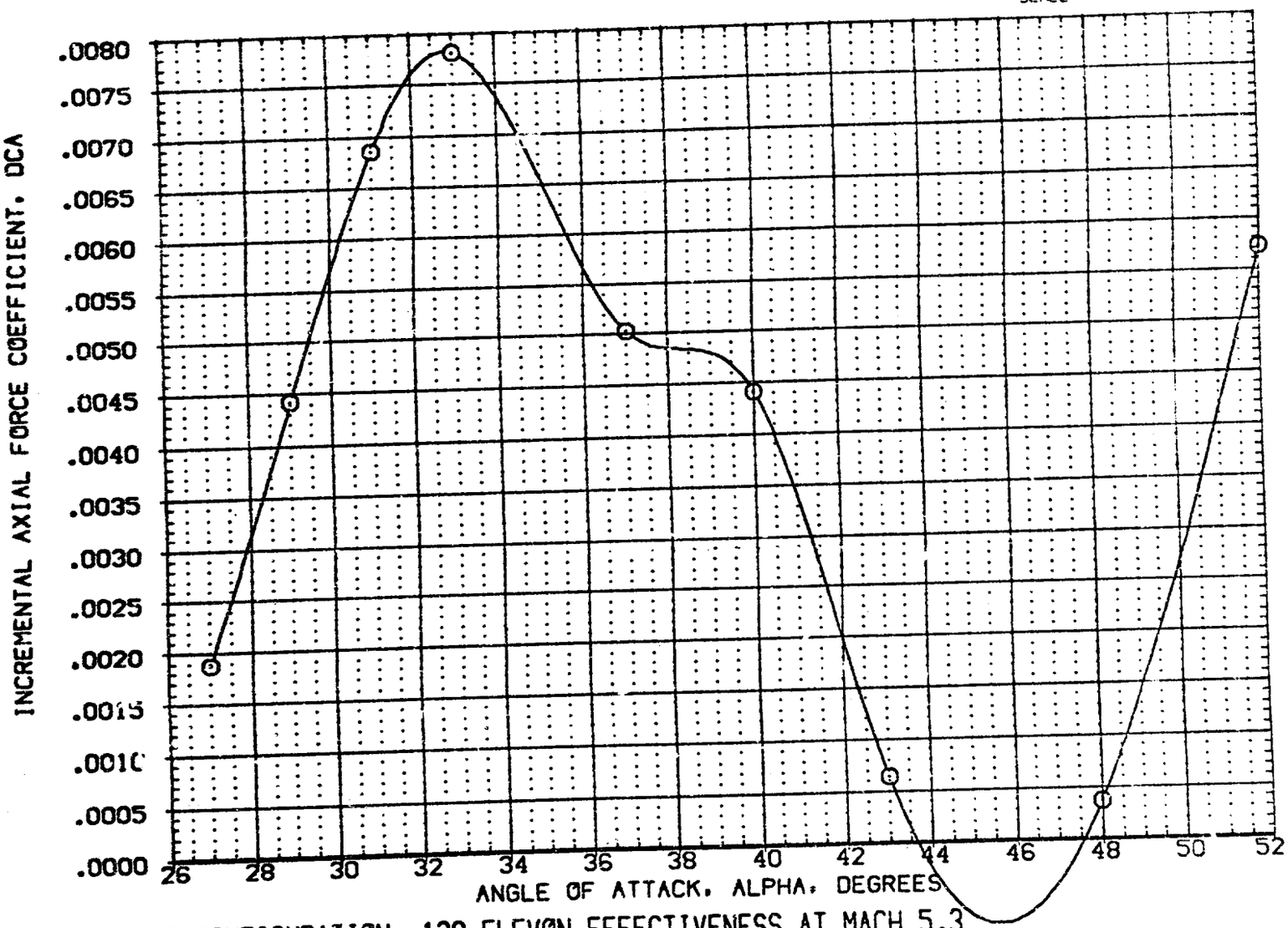


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(CBY0:9) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0300	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

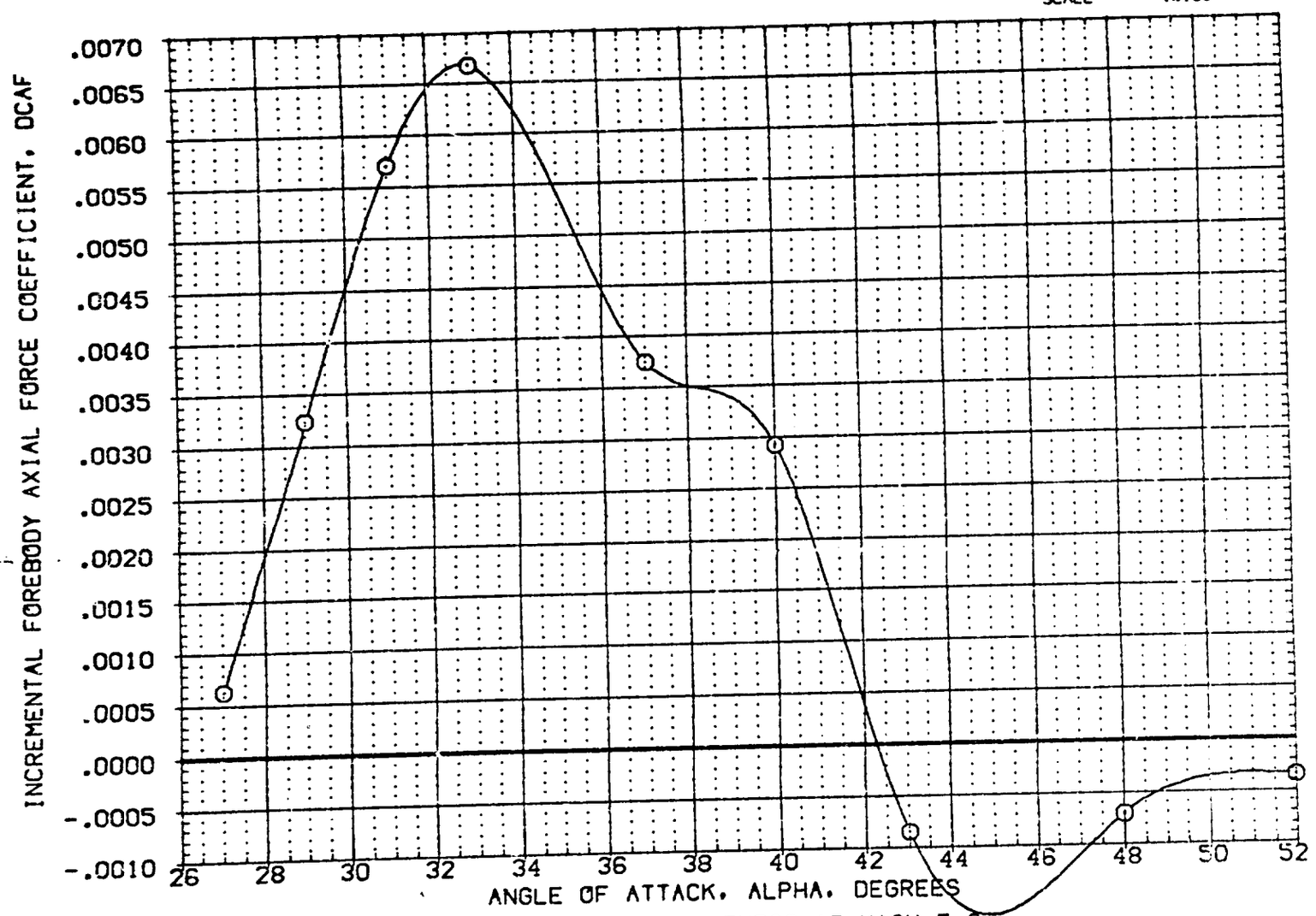


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(GBY019) ○ AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)

BETA	DE	BOFLAP	SPDBRK
.000	-44.000	-14.250	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

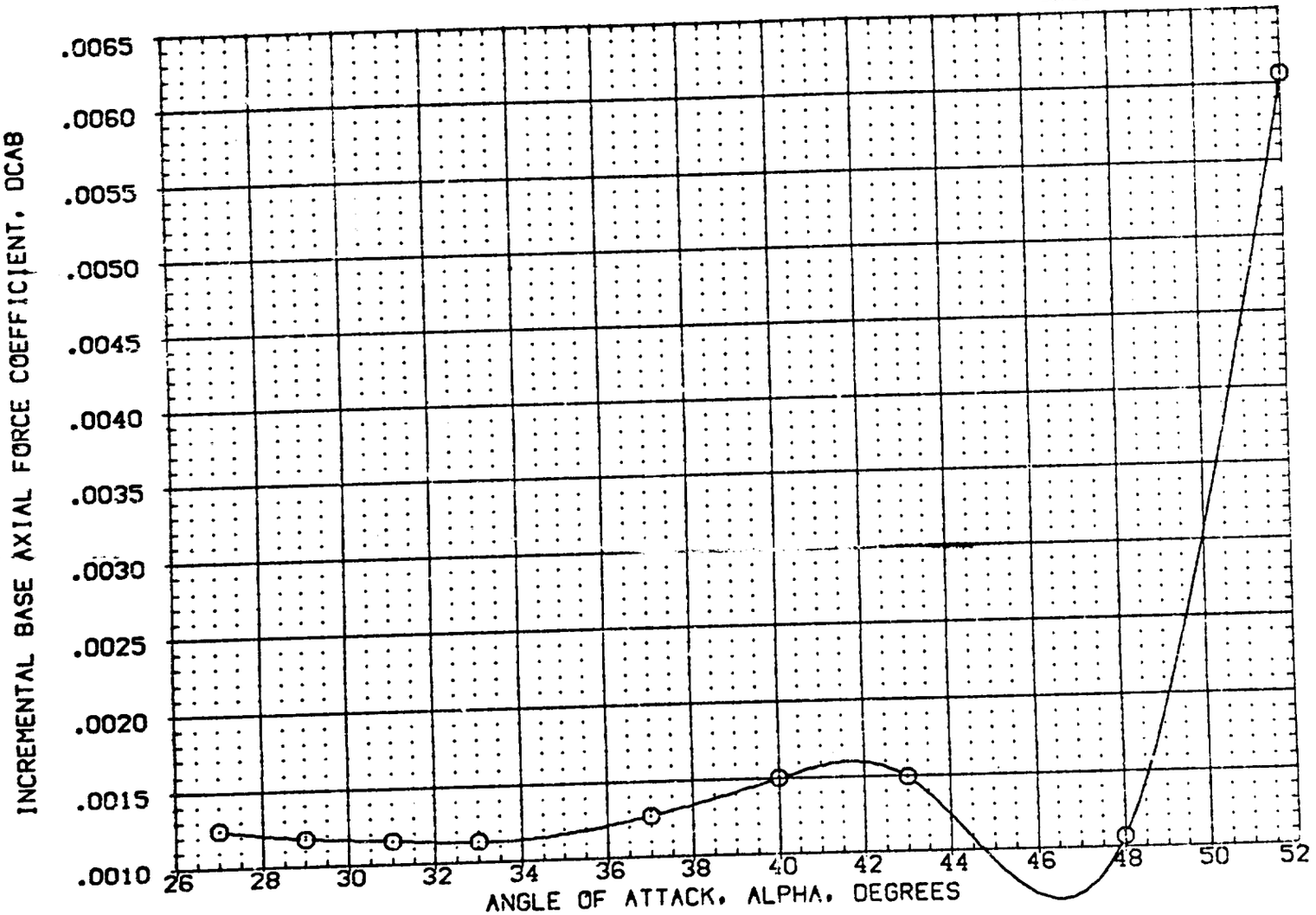


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPDBRK
(GBY019) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	13.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

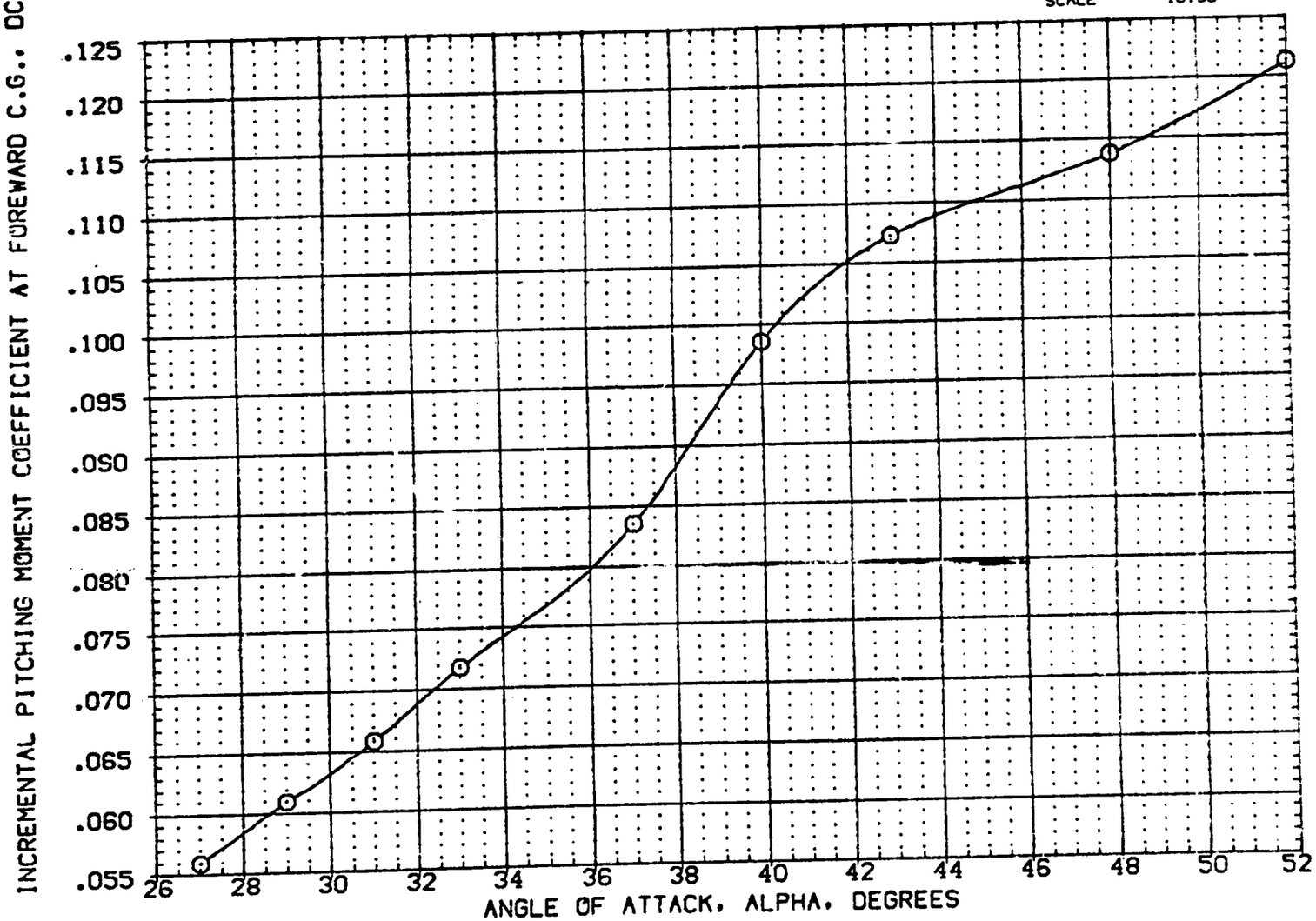


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(GBY019) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

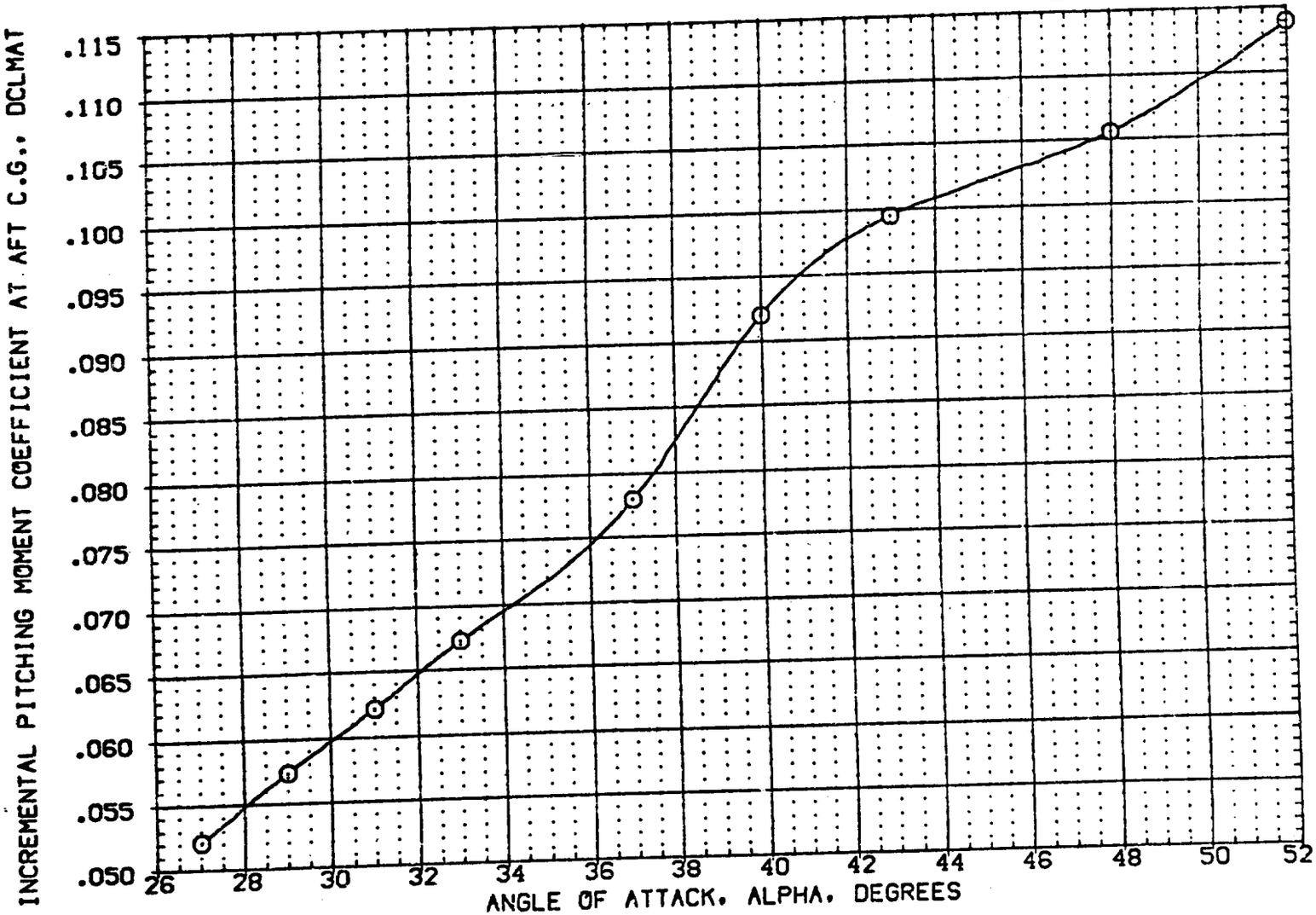


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

(A)MACH = 5.30

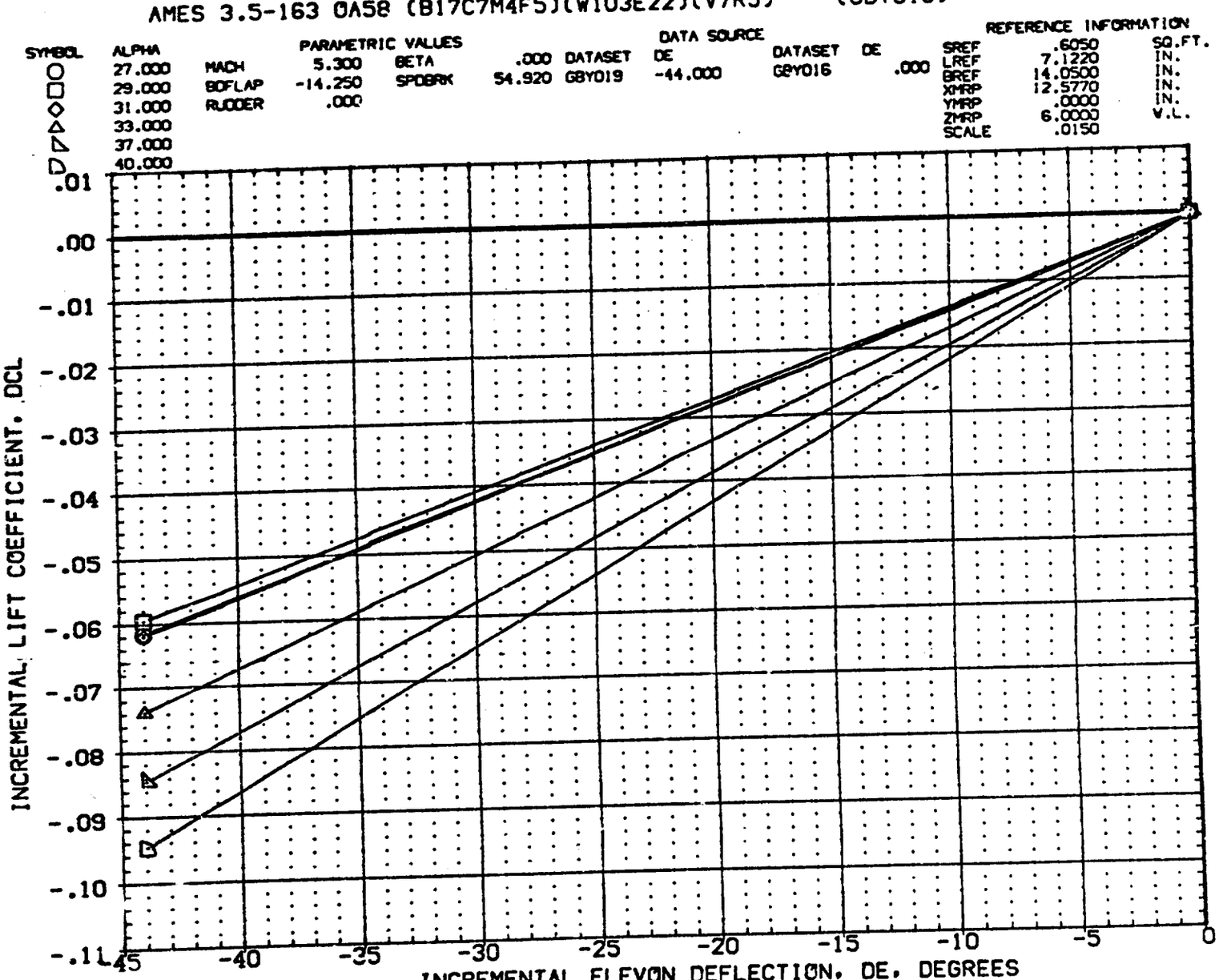


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (GBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	
□	48.000	BOFLAP	-14.250	SPOBRK	54.920	GBY019	-44.000	GBY016	.000	
◇	52.000	RUDDER	.000							

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0300	V.L.
SCALE	.0150	



FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

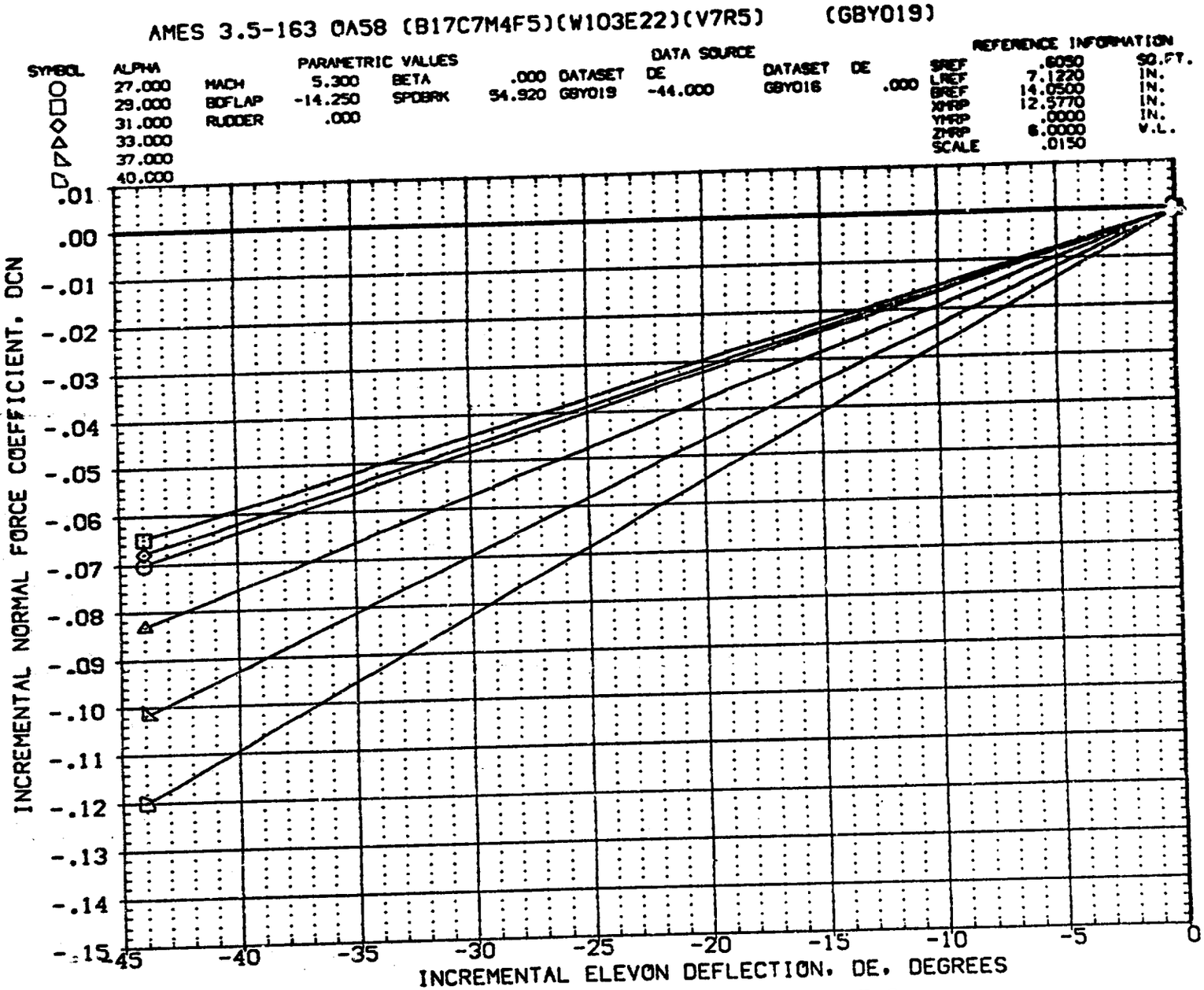


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (GBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	48.000	BOFLAP	-14.250	SPOBRK	54.920	GBY019	-44.000	GBY016	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000							BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

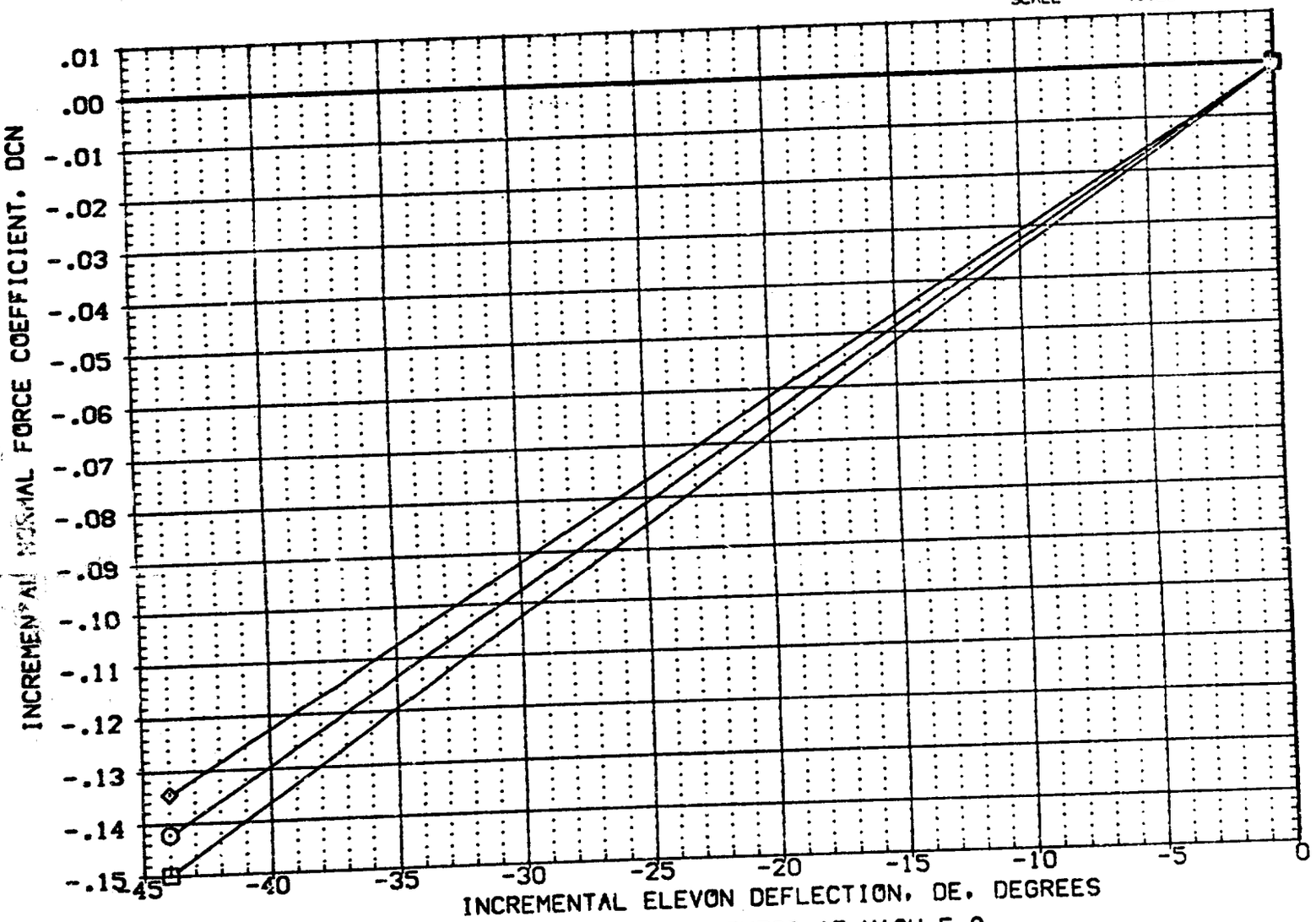


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

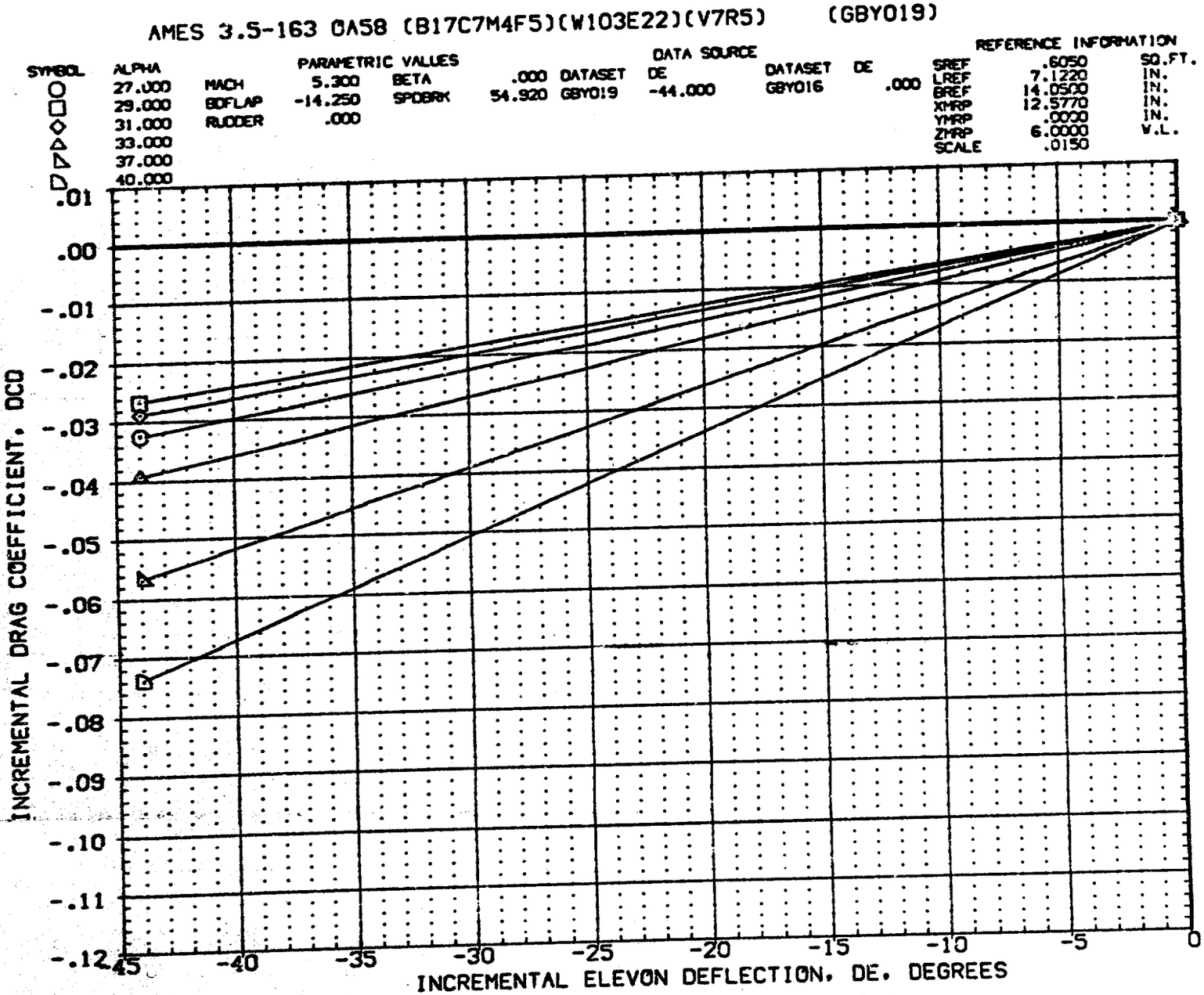


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

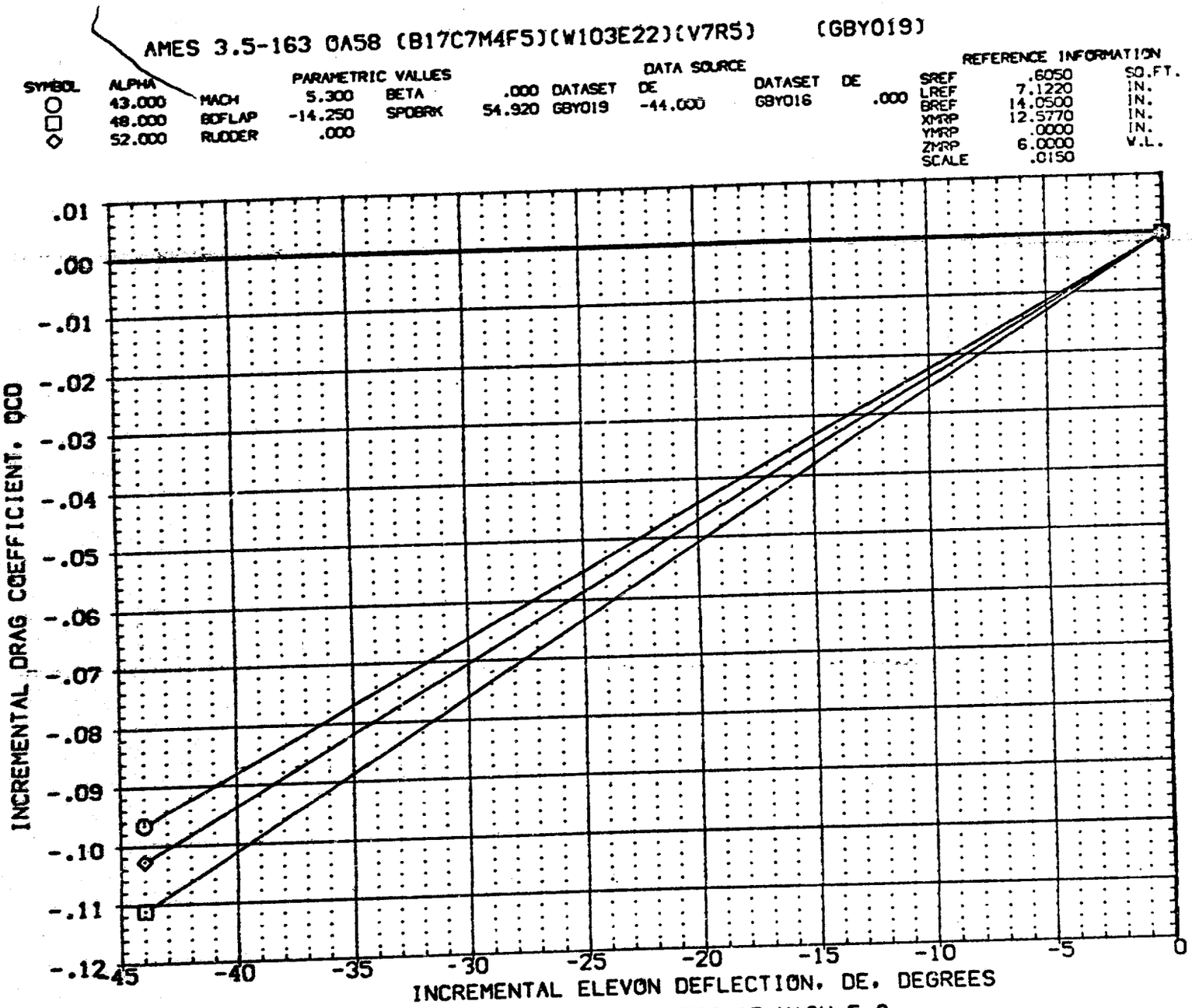


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

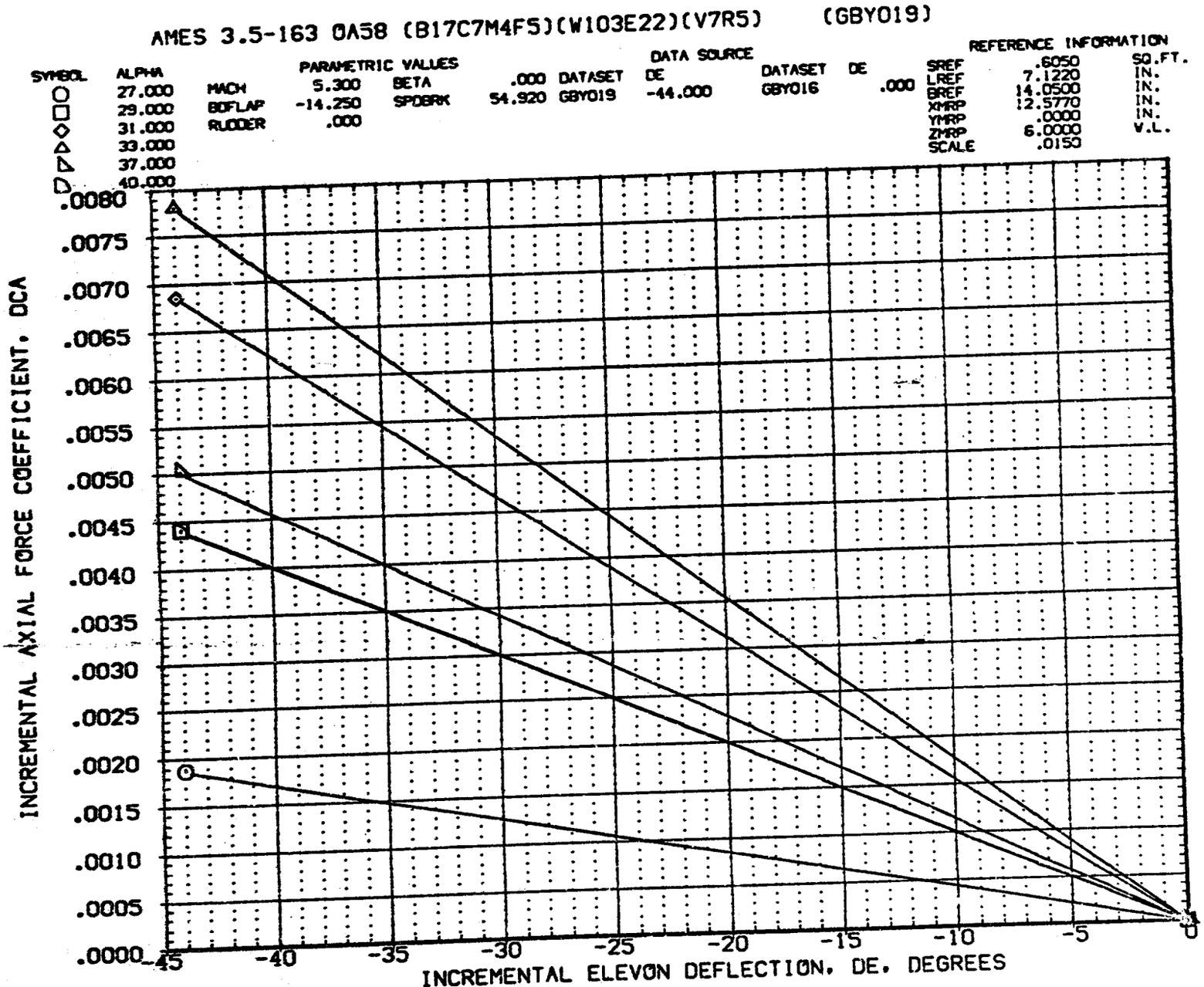


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5) (GBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	
□	48.000	BDFLAP	-14.250	SPDBRK	54.920	GBY019	-44.000	GBY016	.000	
◇	52.000	RUDDER	.000							

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

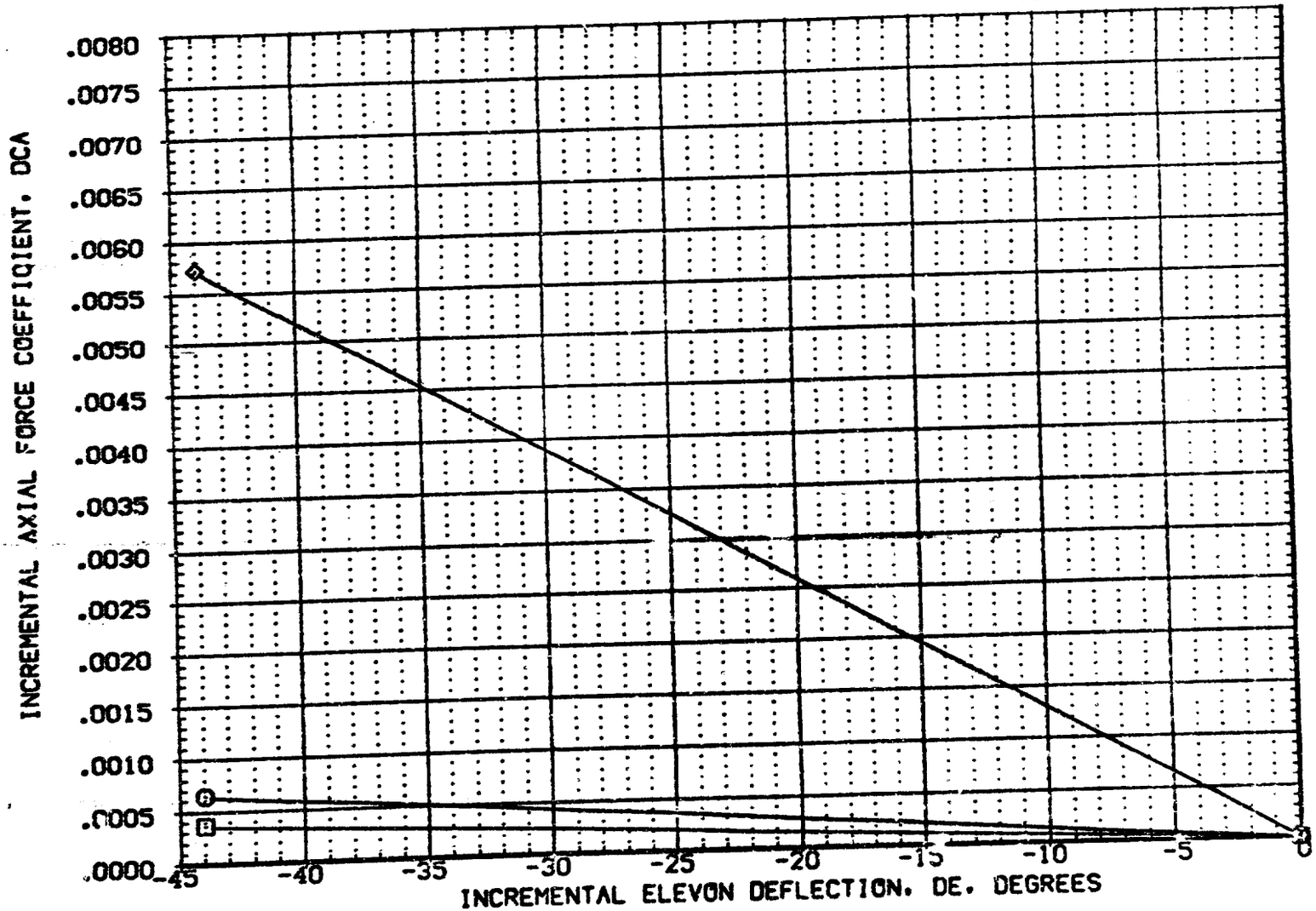


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

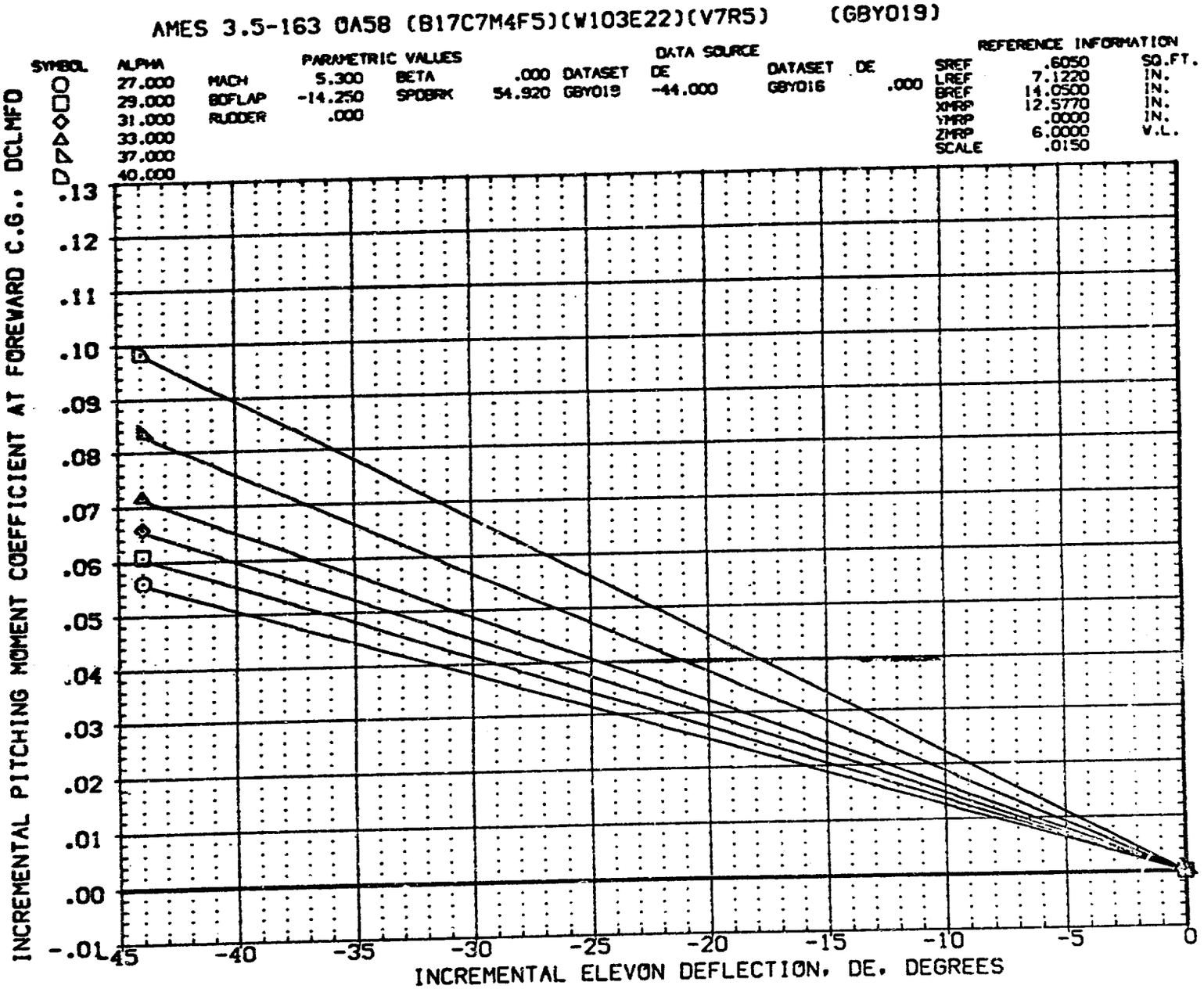


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (GBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
◇	43.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	48.000	BOFLAP	-14.250	SPOBRK	54.920	GBY019	-44.000	GBY016	.000	LREF	7.1220	IN.
○	52.000	RUDDER	.000							BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

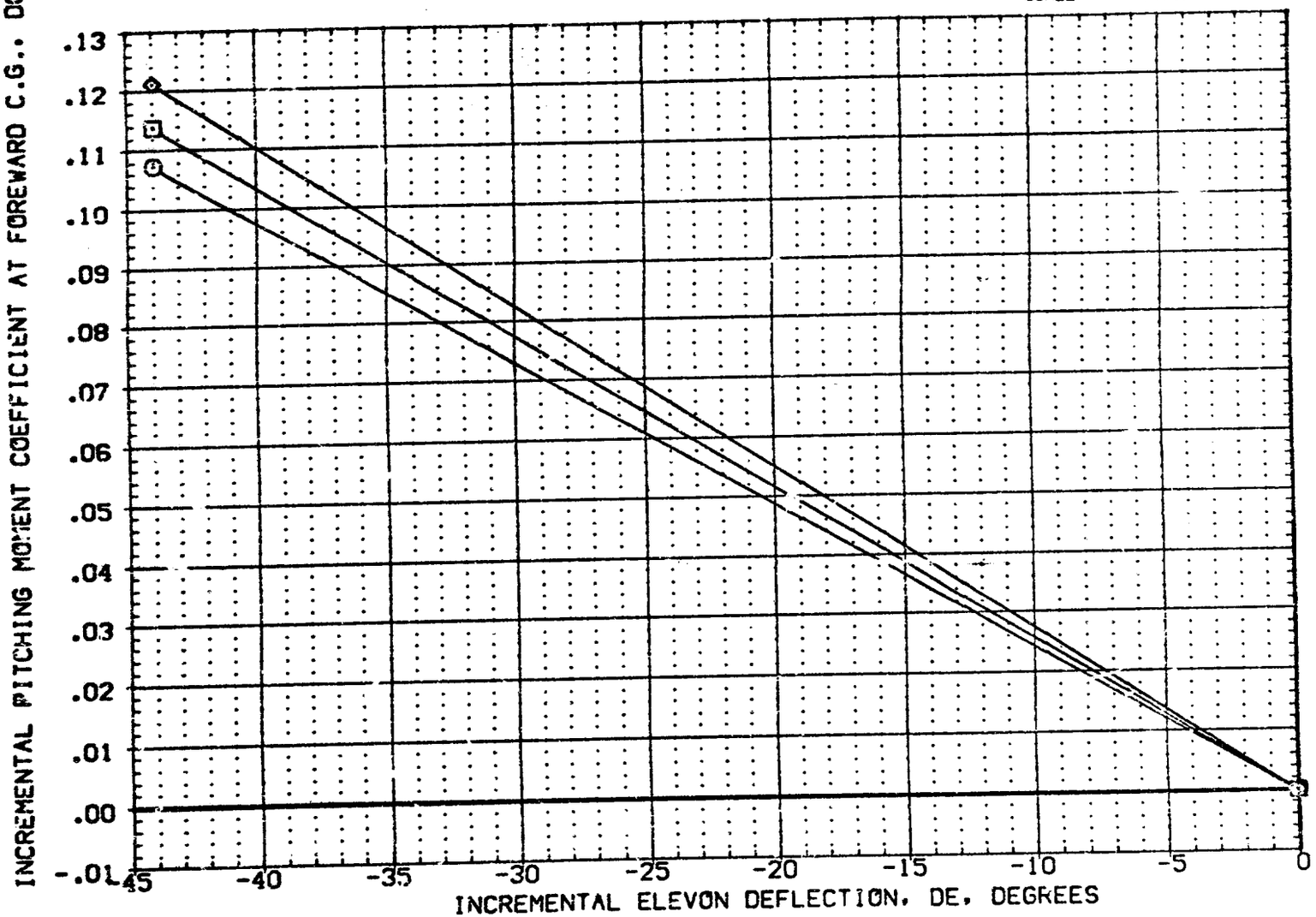


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

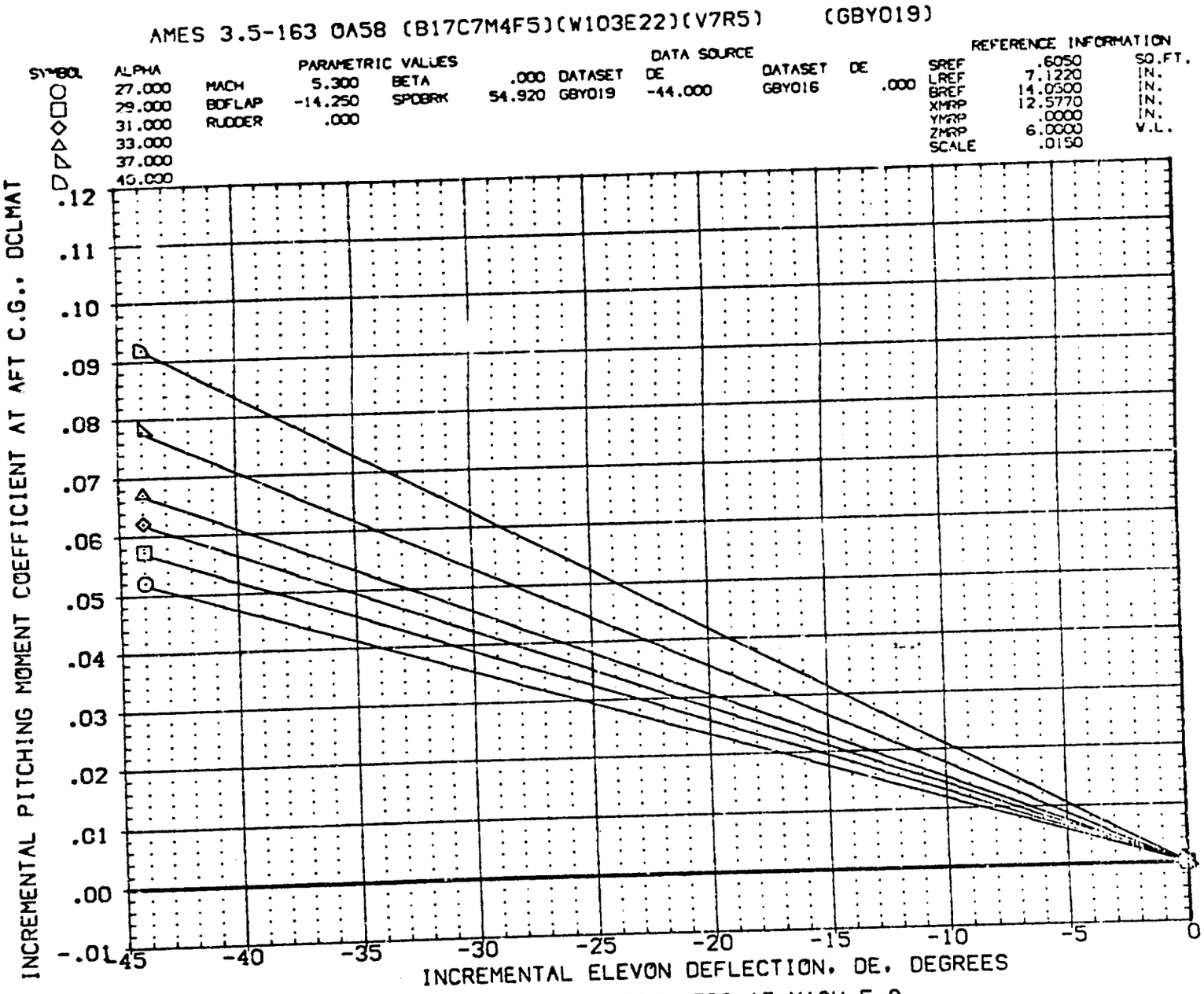


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (GBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	5.300	BETA	.000	DATASET	DE	DATASET	DE	
□	48.000	BOFLAP	-14.250	SPOBRK	54.920	GBY019	-44.000	GBY016	.000	
◇	52.000	RUDDER	.000							

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

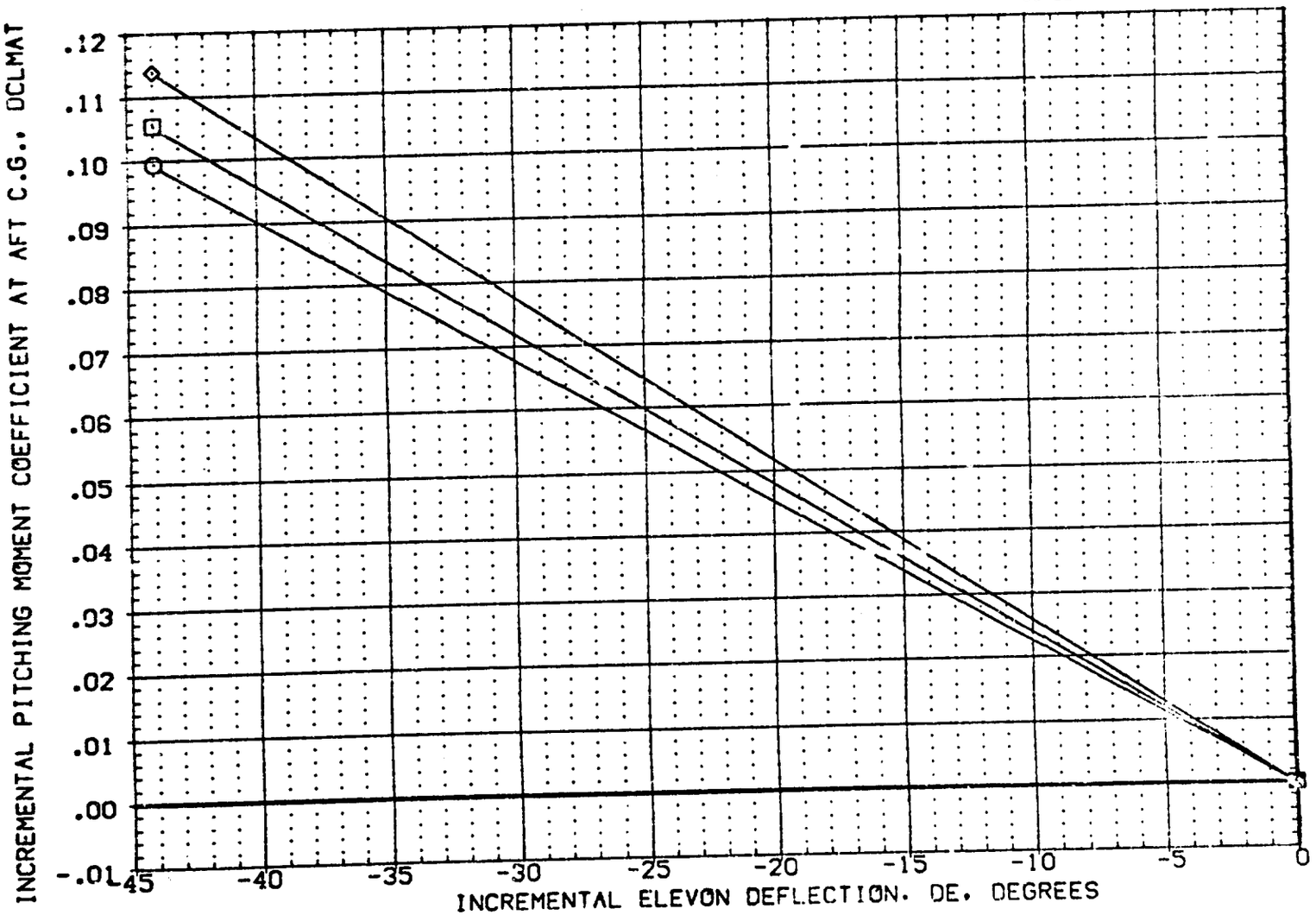


FIG. 9 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 5.3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY021)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	◁	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY024)	▷	AMES 3.5-163 0A59 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	D	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

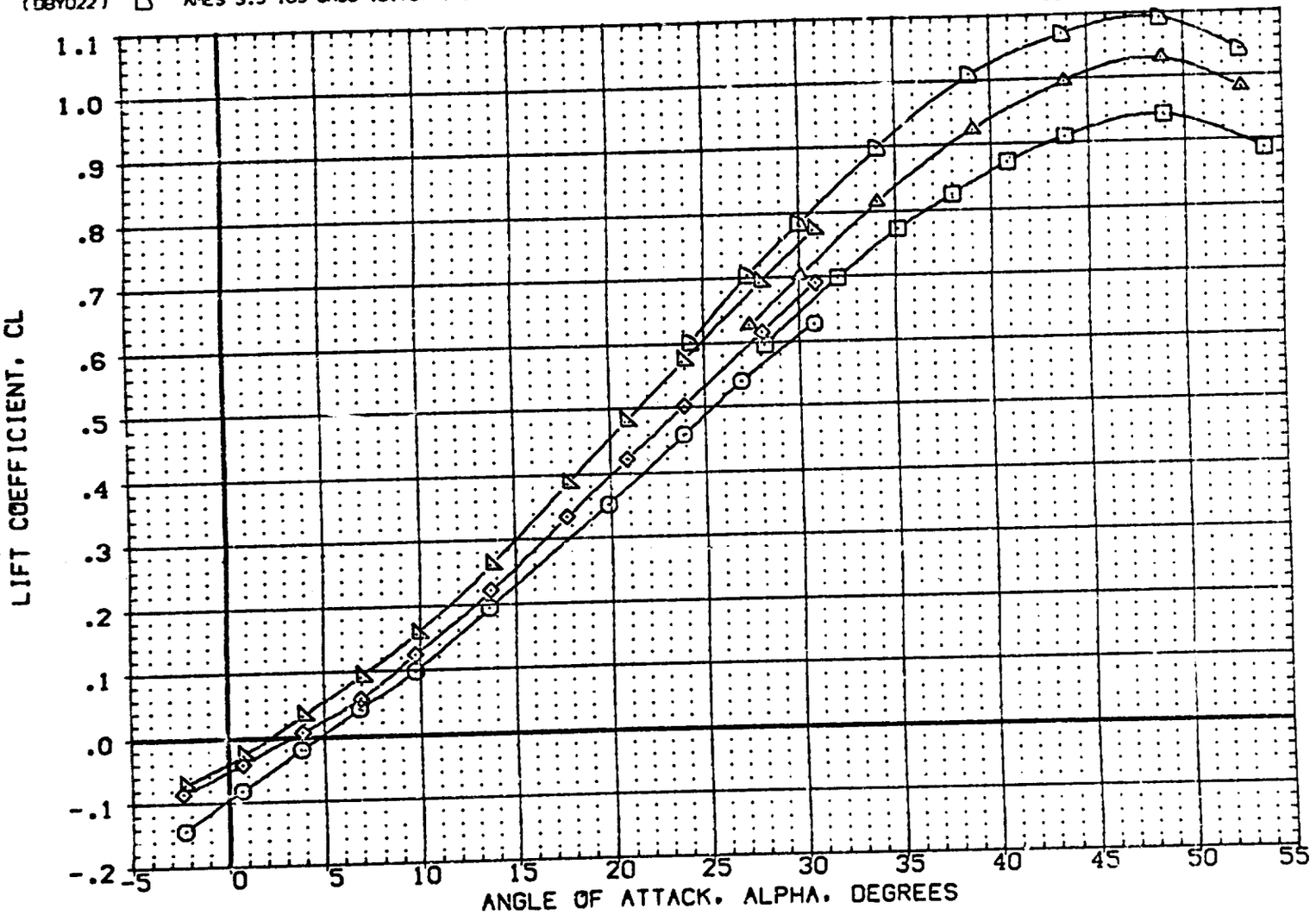


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(B8YO21)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(K8YO19)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(B8YO18)	○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(K8YO16)	△	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(B8YO24)	▽	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(B8YO22)	▽	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

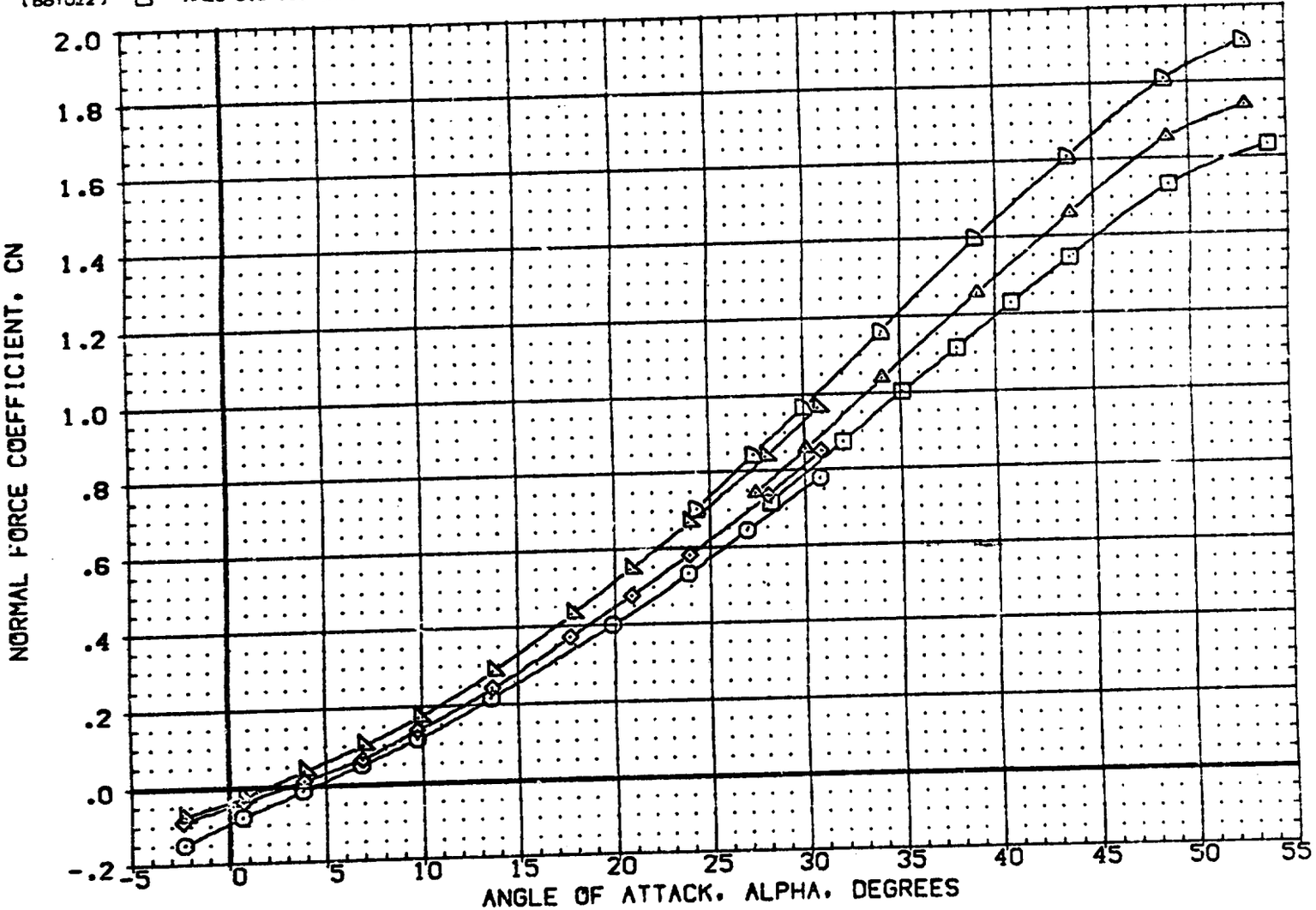


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY021)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY024)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

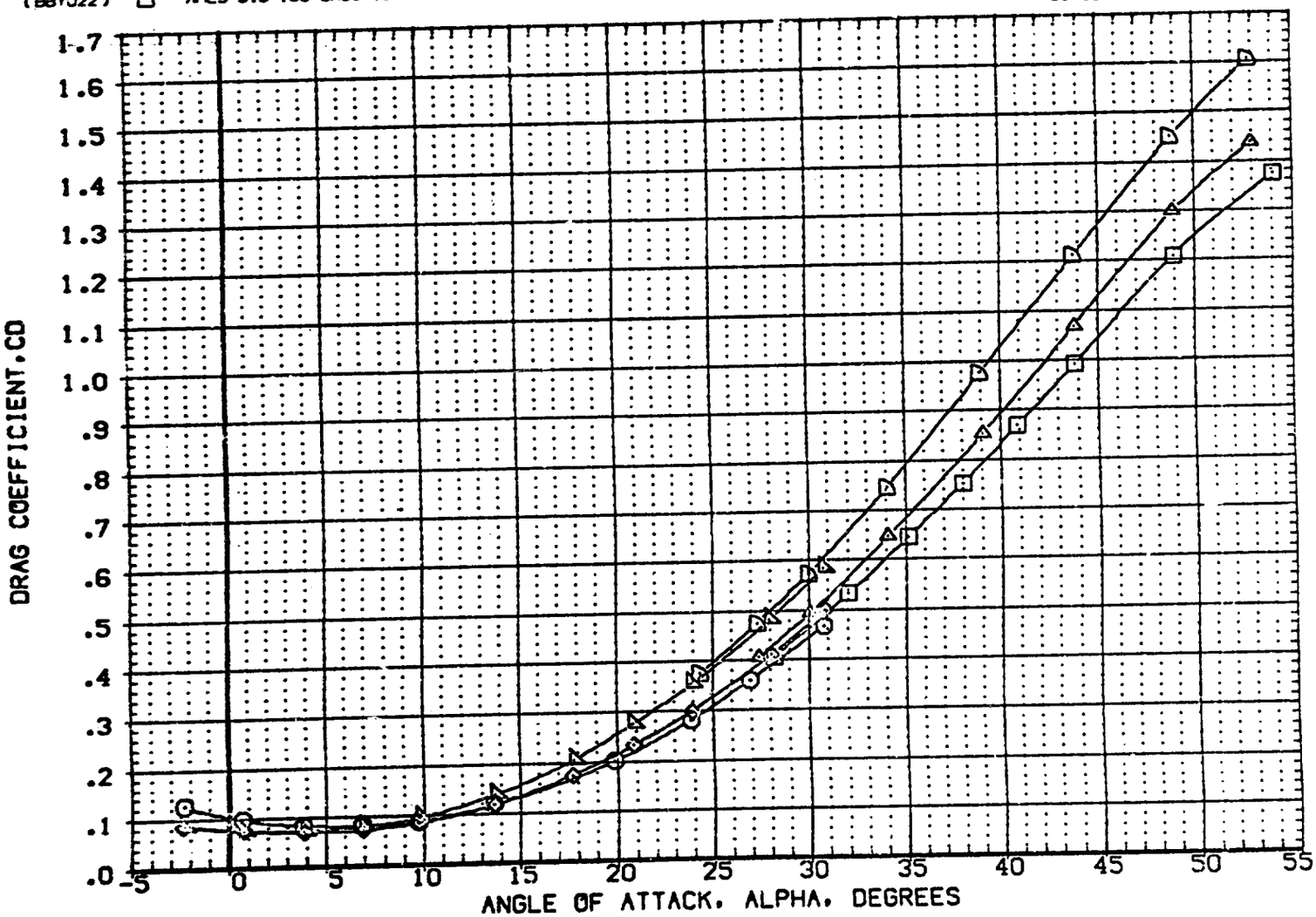


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY021)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY024)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

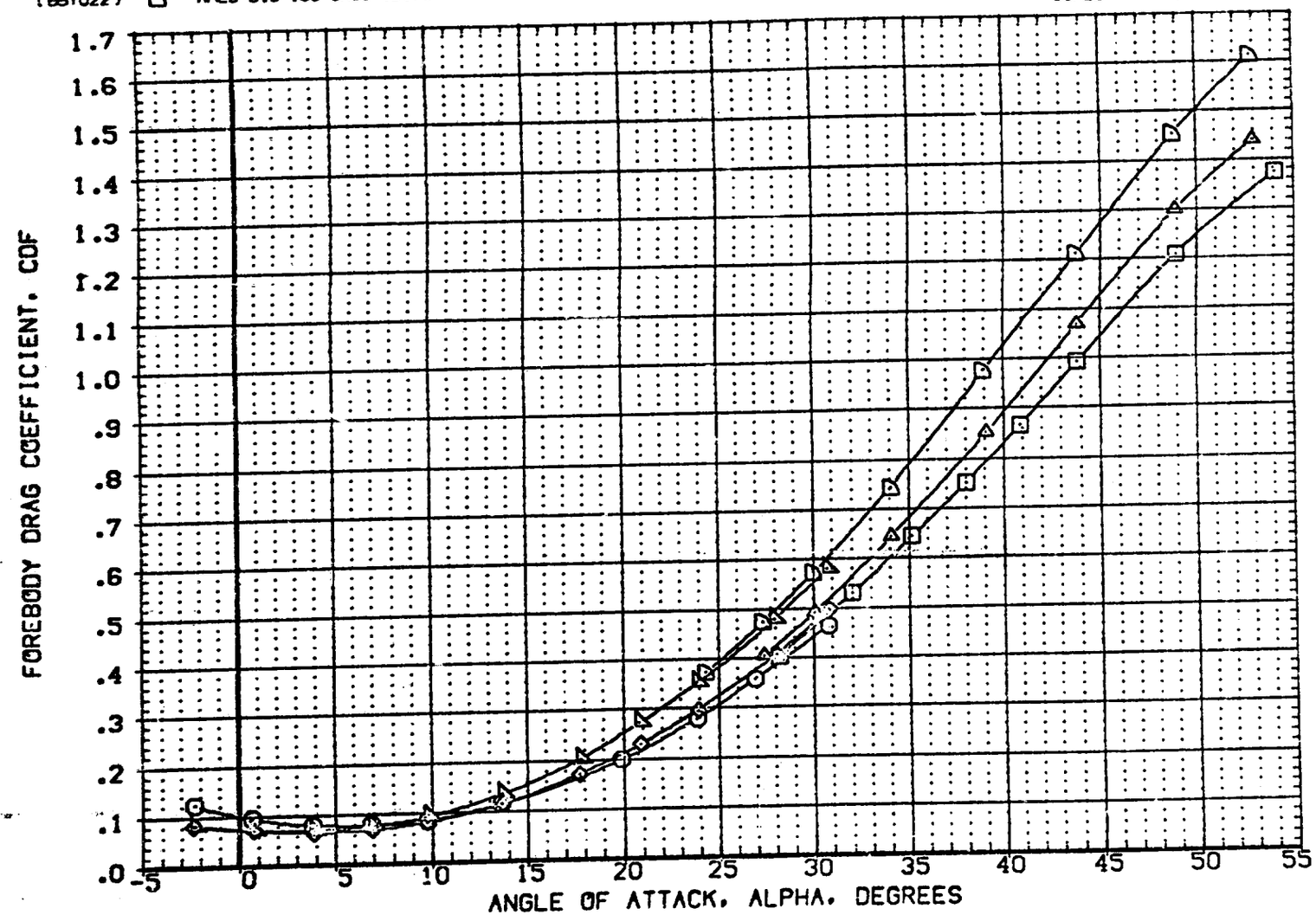


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY021)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY024)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

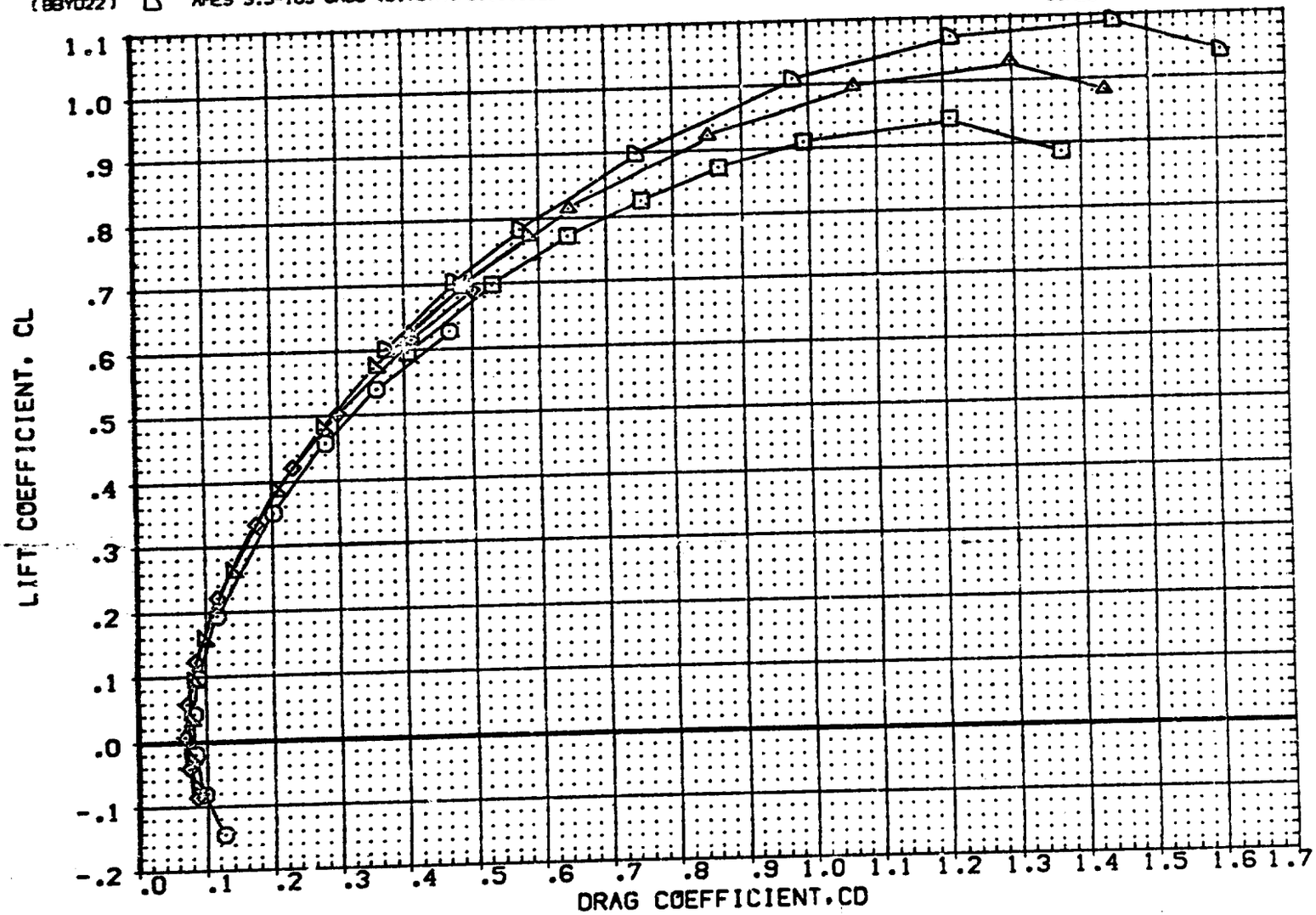


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBYO21)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBYO19)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBYO18)	⊗	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBYO16)	△	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBYO24)	▽	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBYO22)	◁	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

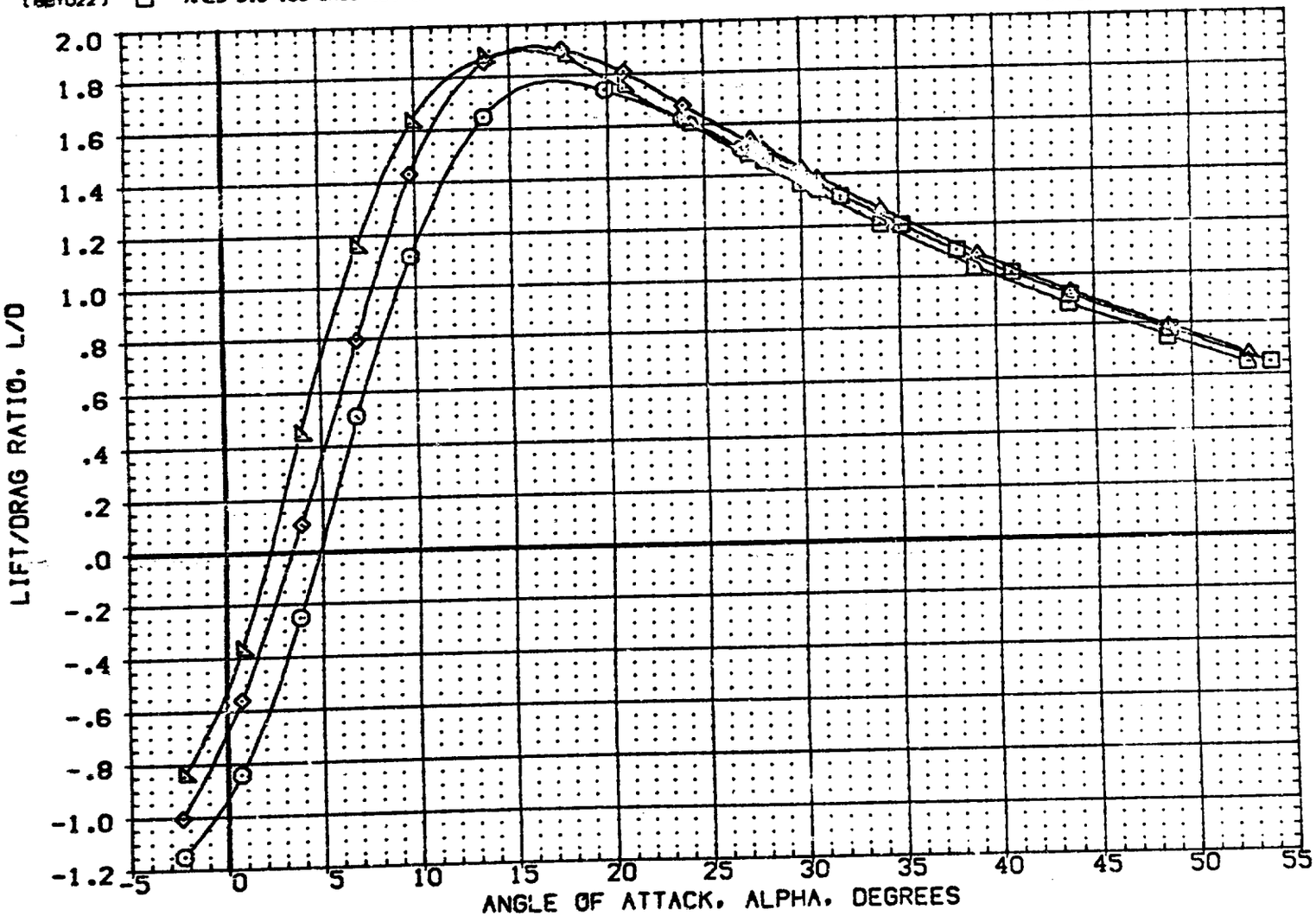


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPLBRK
(88Y021)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(K8Y019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(88Y018)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(K8Y016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y024)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(88Y022)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0900	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

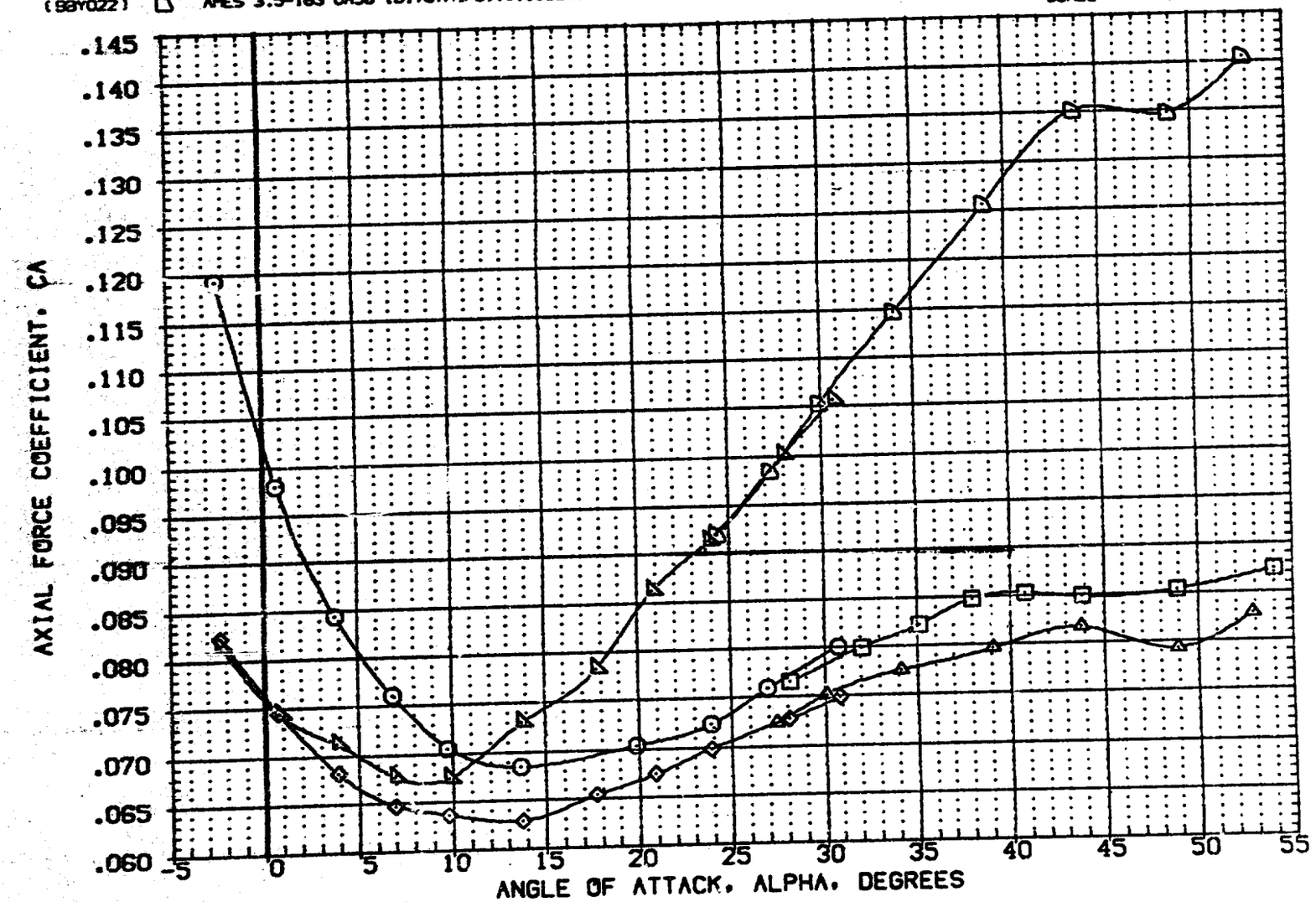


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(B8YC21)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(K8YO19)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(B8YO18)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(K8YO16)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8YC24)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(B8YO22)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

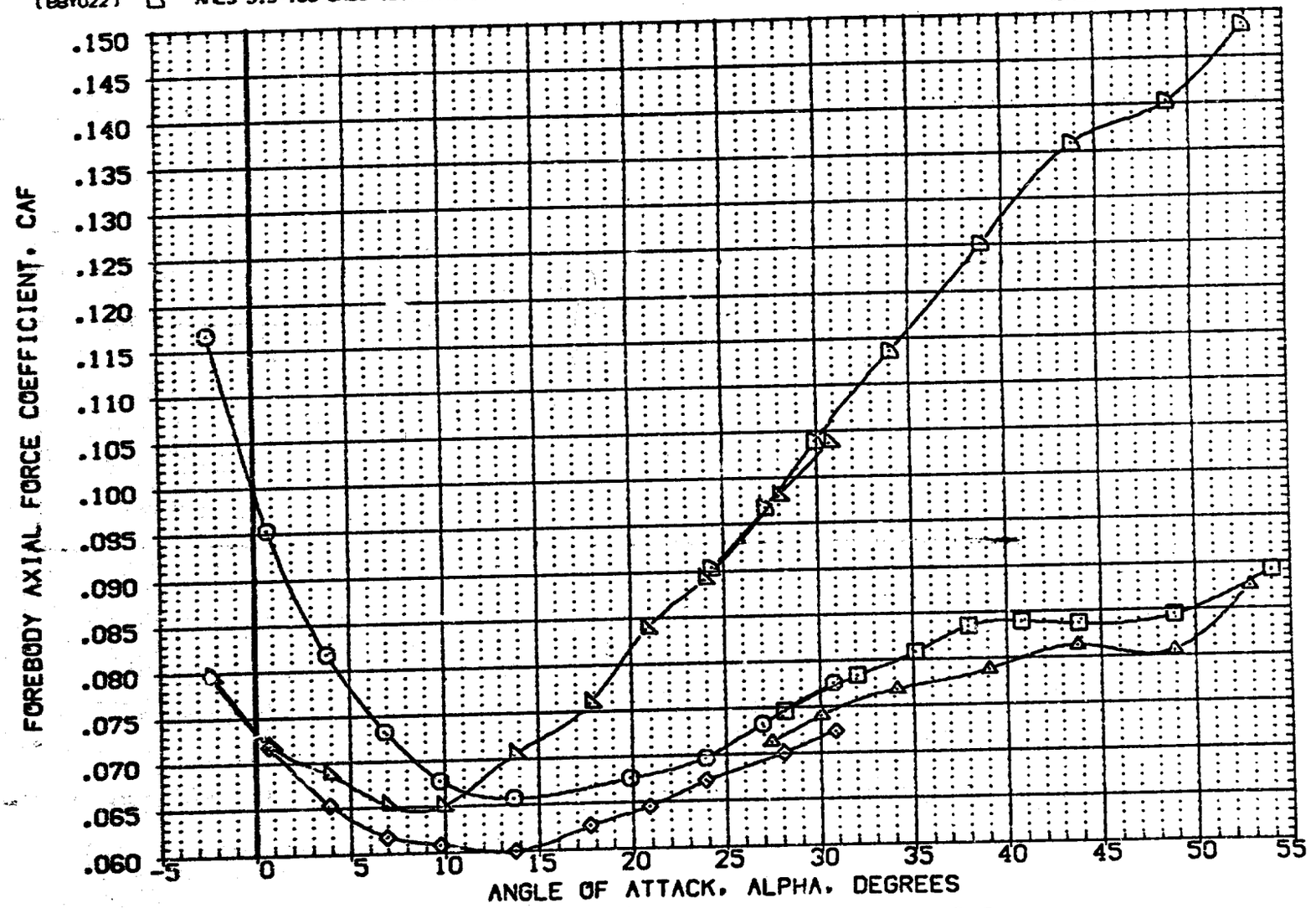


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(BBY021)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY024)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

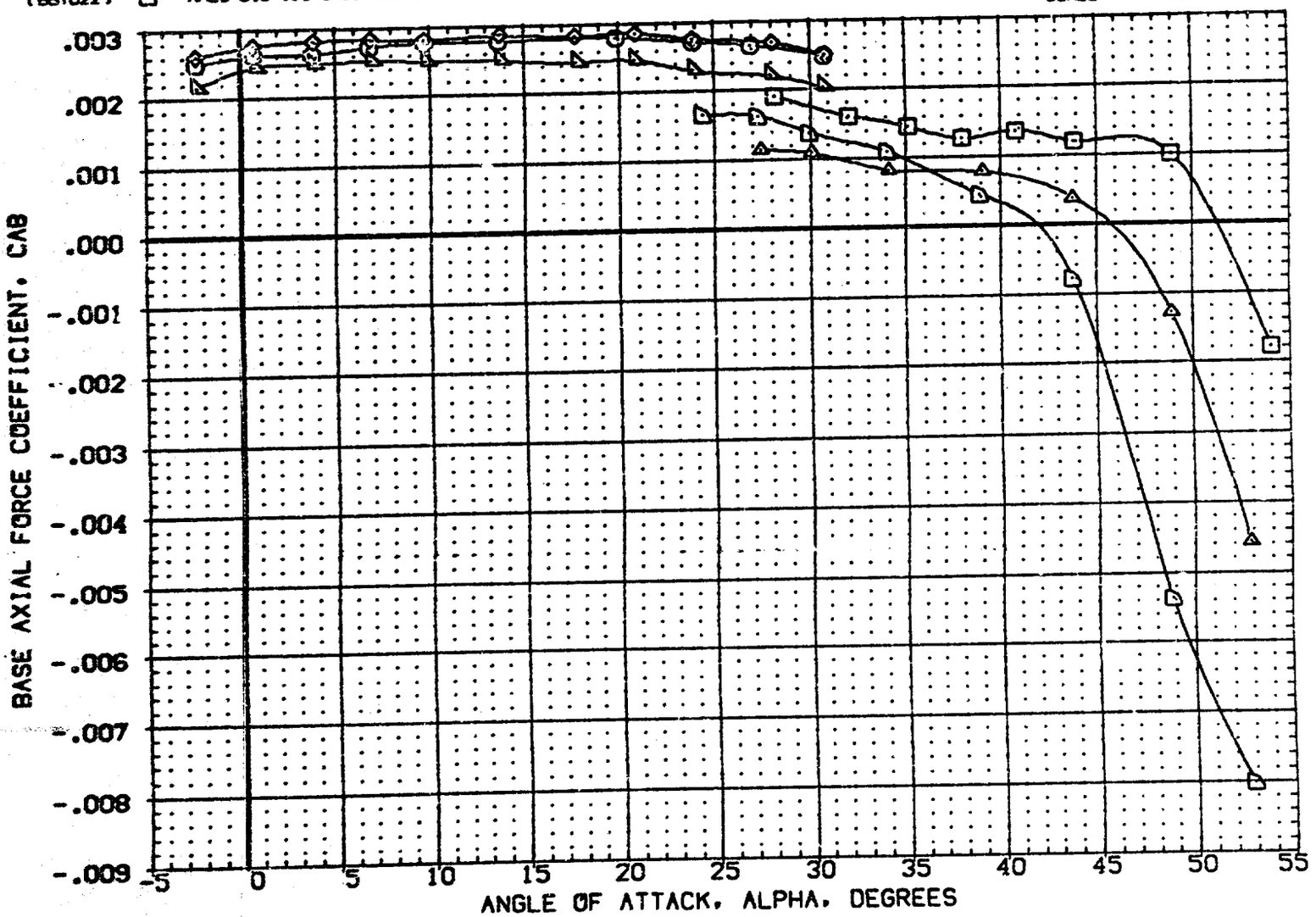


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY021)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBY019)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY018)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(KBY016)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY024)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(BBY022)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

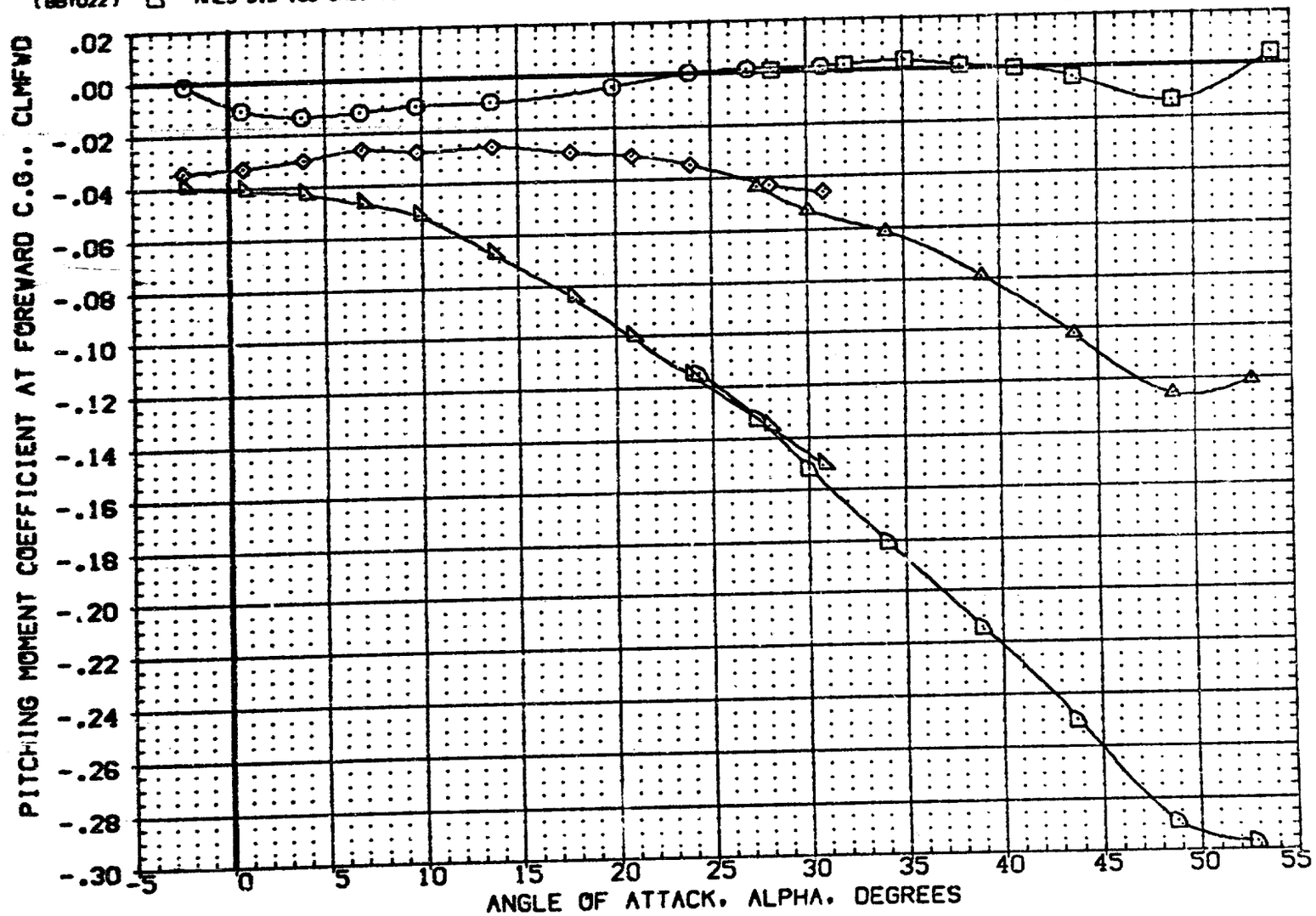


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

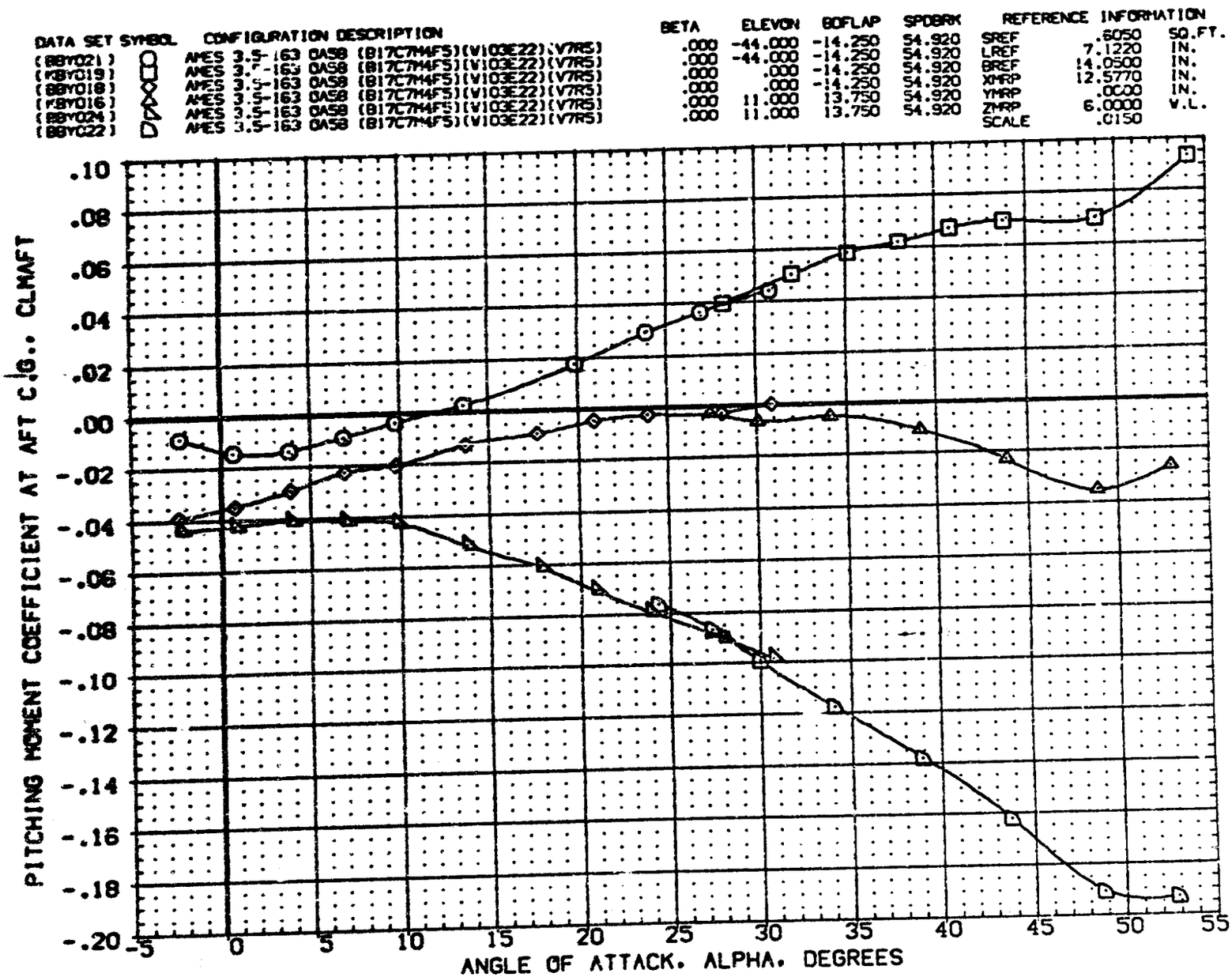


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(88Y021)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(88Y019)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(88Y018)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y016)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(88Y024)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(88Y022)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.000	IN.
ZMRP	6.000	W.L.
SCALE	.0150	

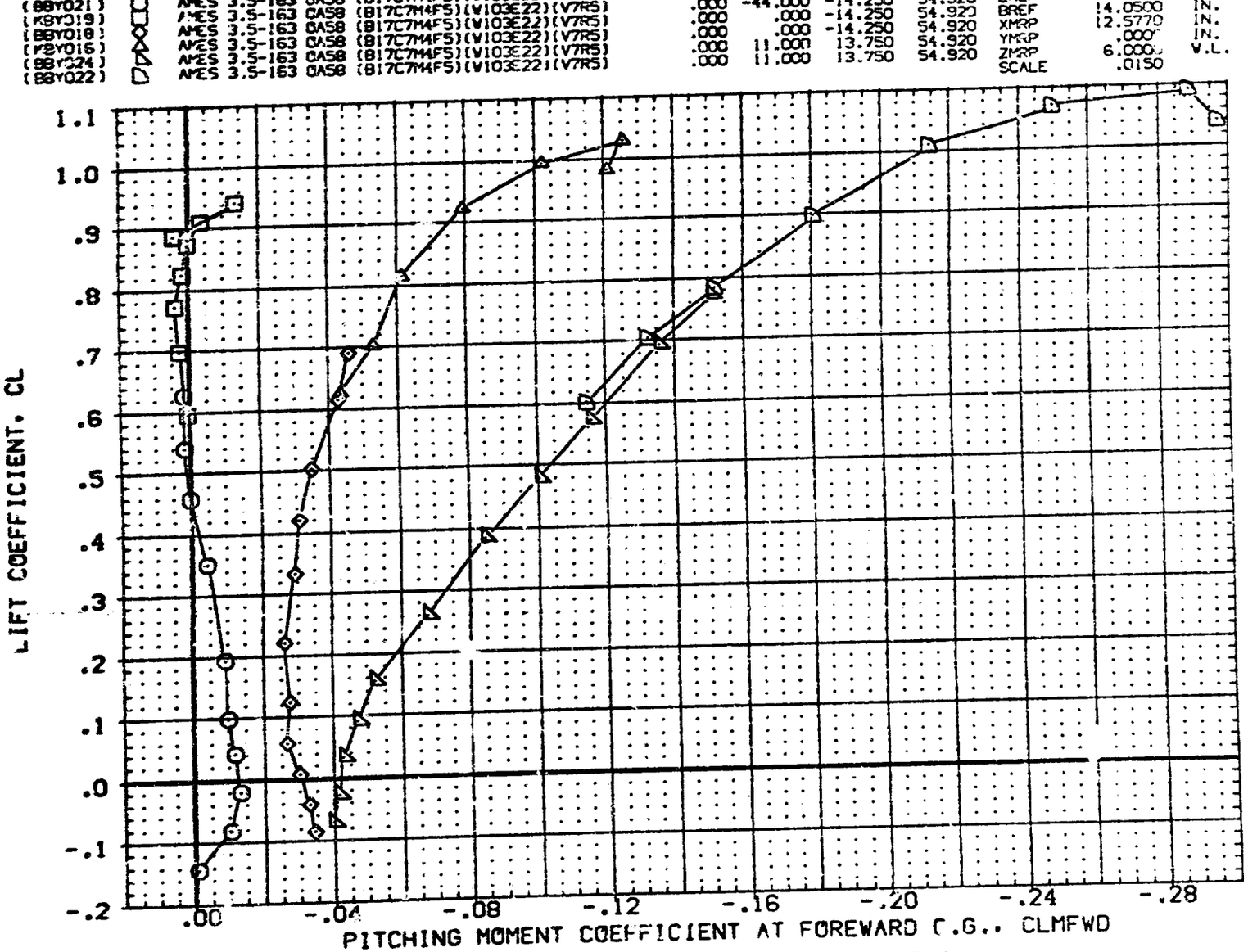


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BODFLAP	SPOBRK
(BBYO21)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	-44.000	-14.250	54.920
(KBYO19)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBYO18)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(KBYO16)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(BBYO24)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	11.000	13.750	54.920
(BBYO22)	AMES 3.5-163 OA58 (B17C7M4F5)(W103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

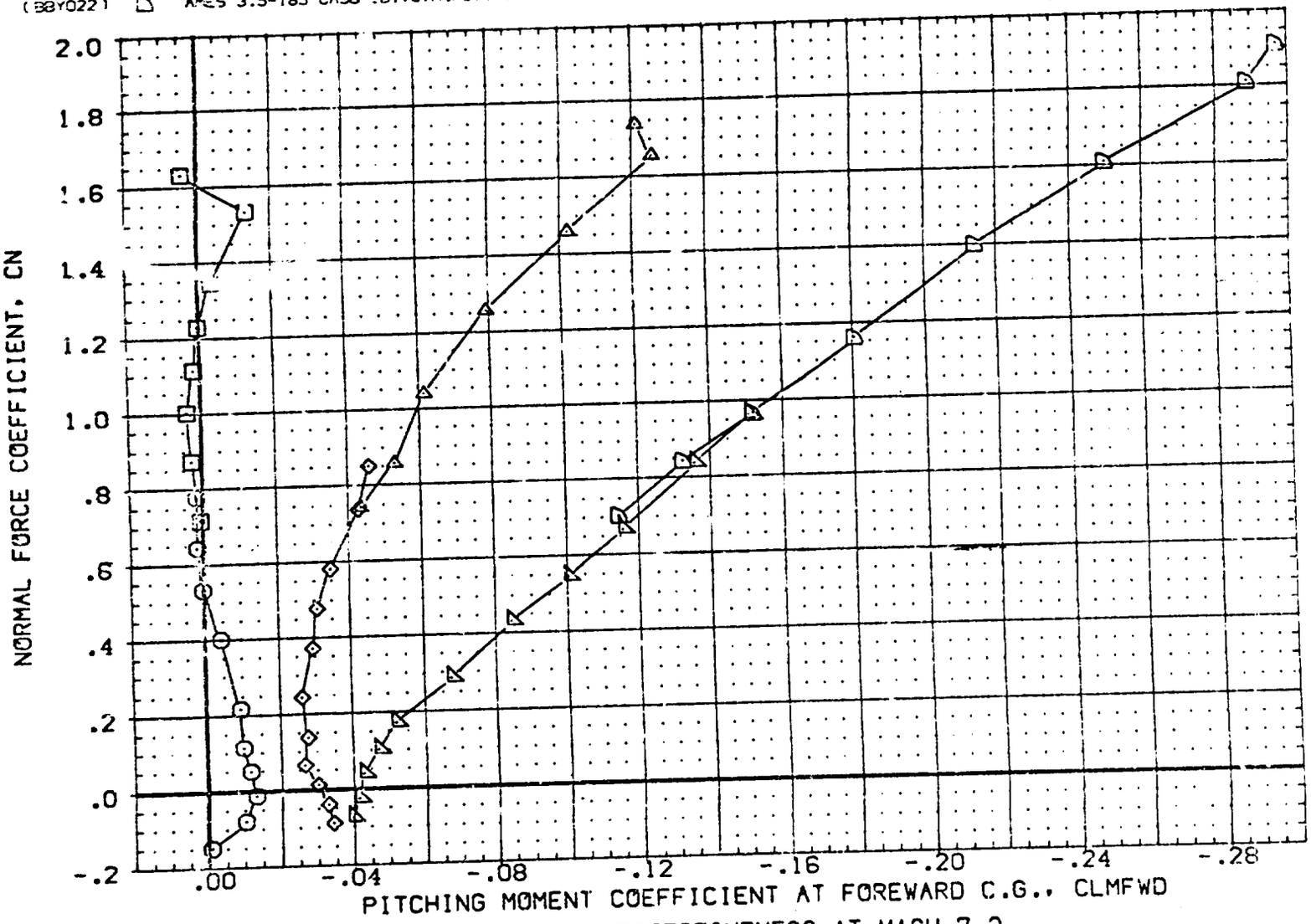


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	GOFLAP	SPOBRK
(RBY021)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(RBYK19)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(RBY018)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(RBYK16)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(RBY024)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(RBY022)		AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

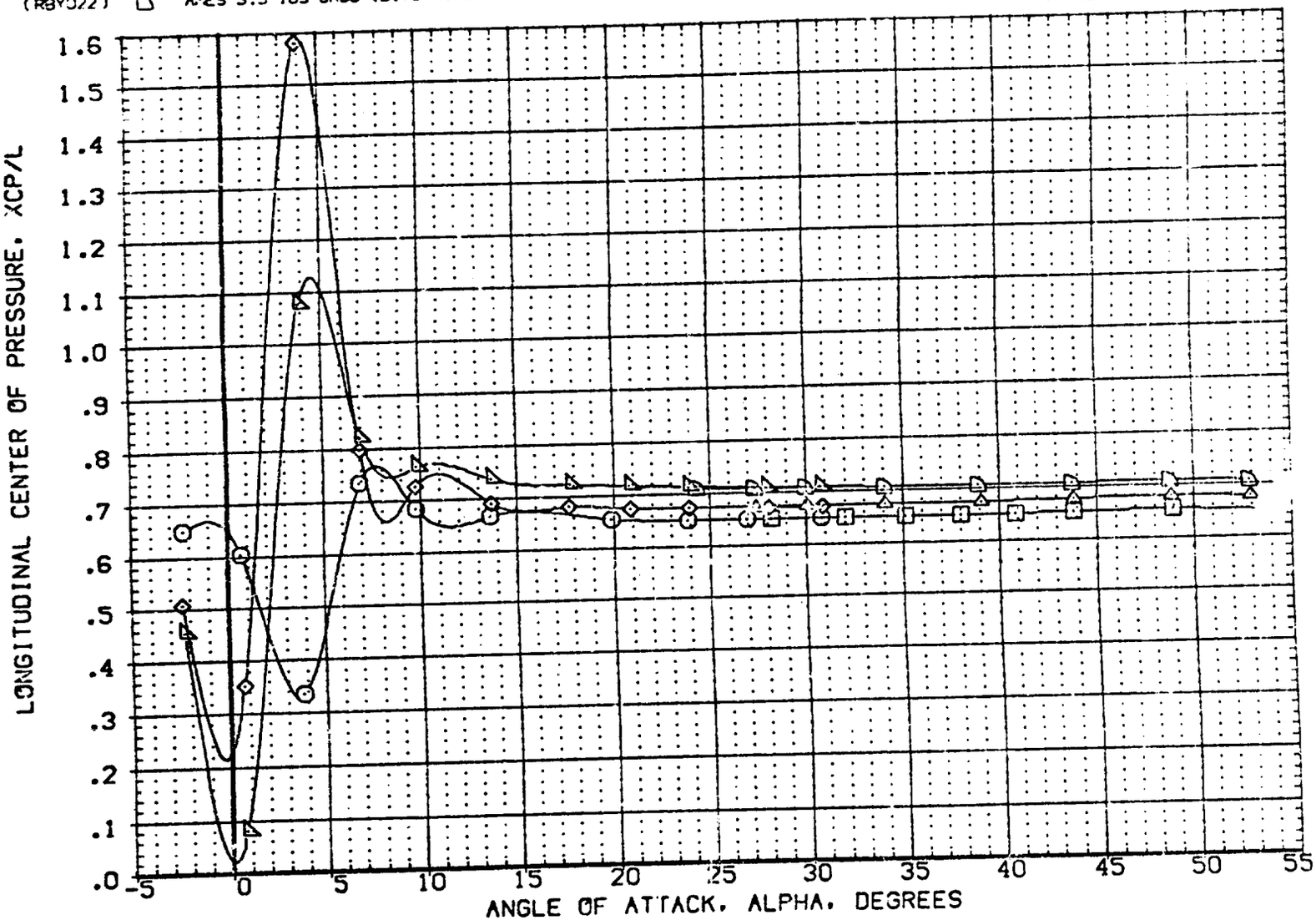


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY021)	○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY019)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	△	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

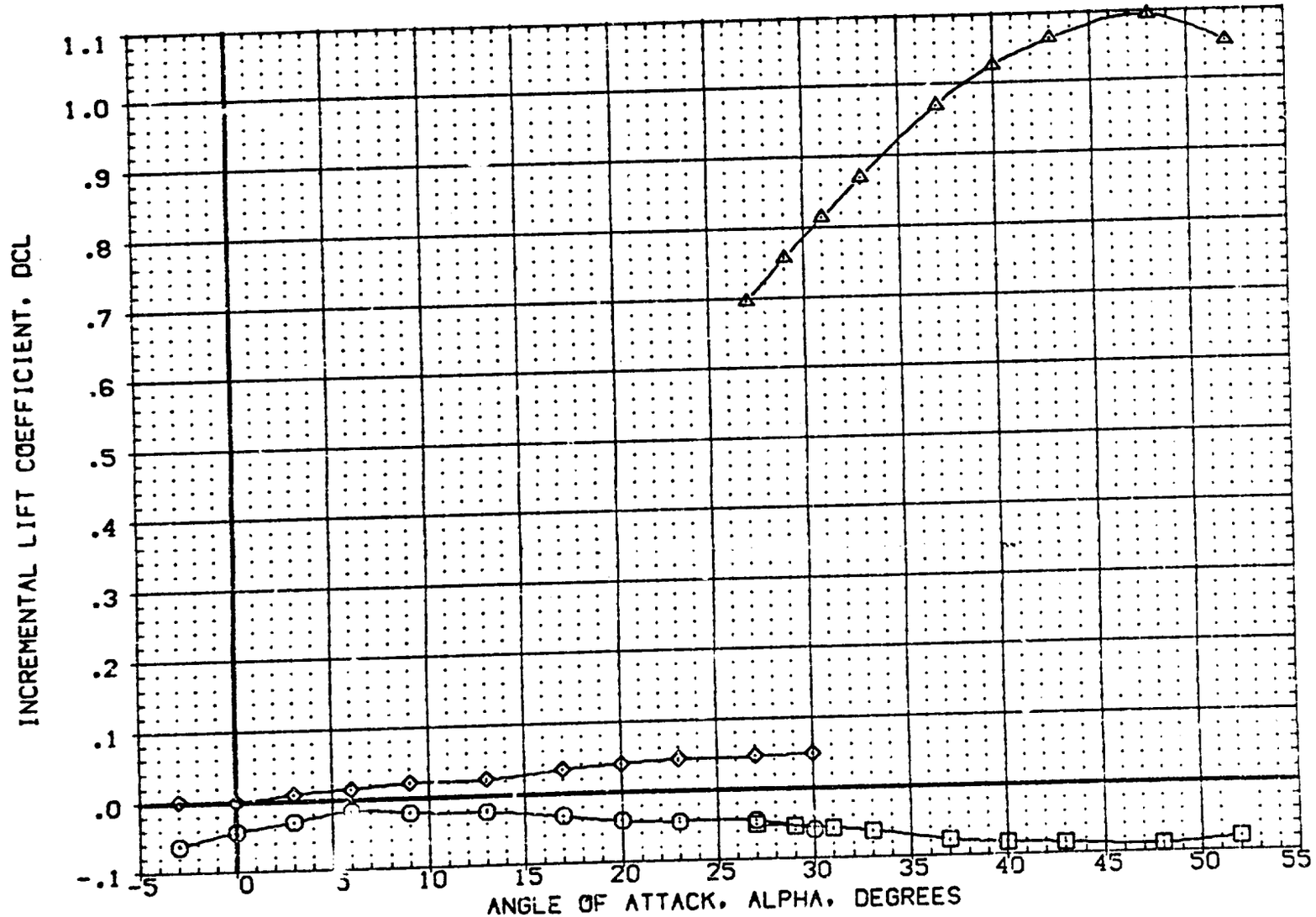


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY021)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(HBY019)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

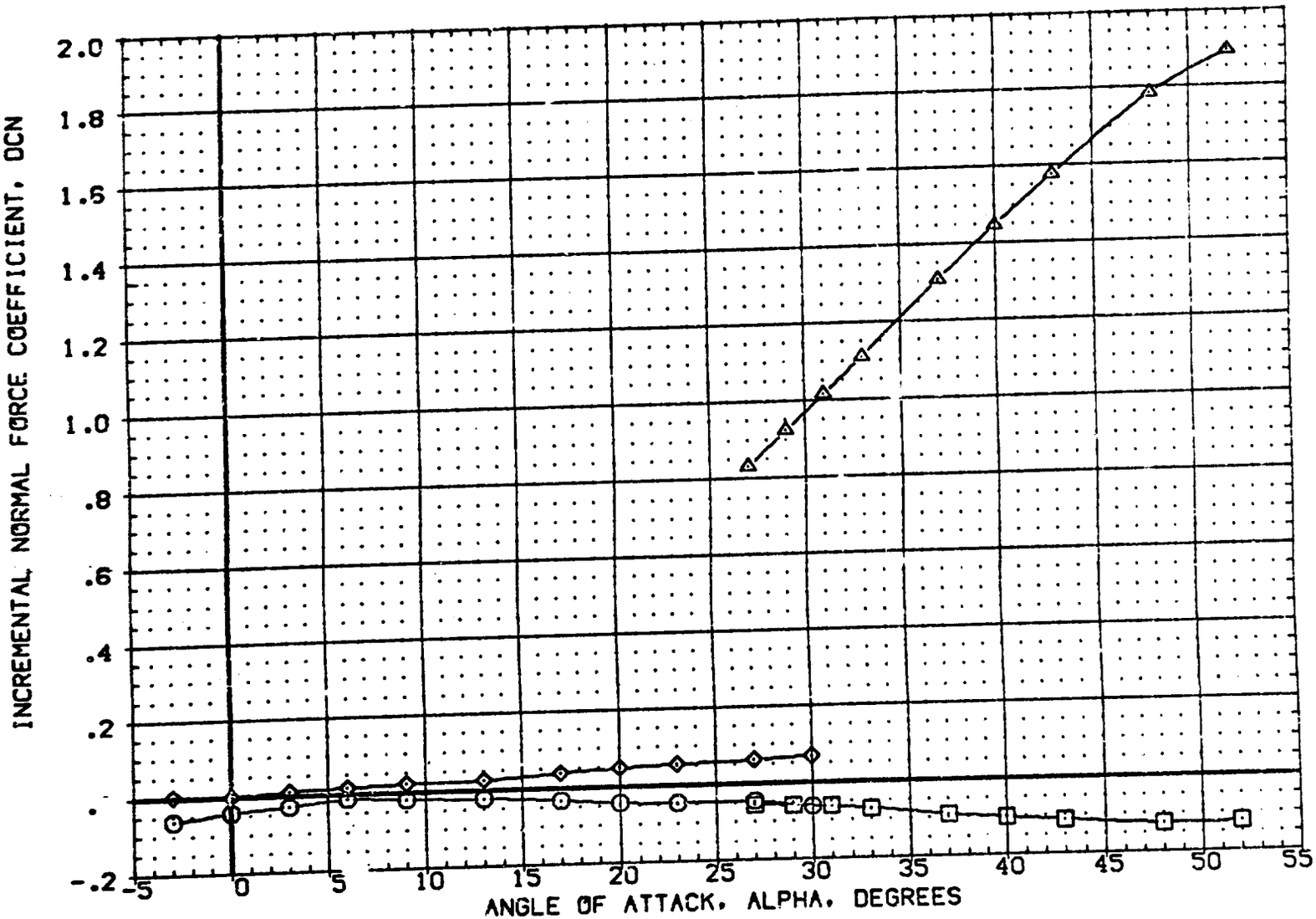


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPOBRK
(EBY02)	○	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY019)	□	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	⊠	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	△	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

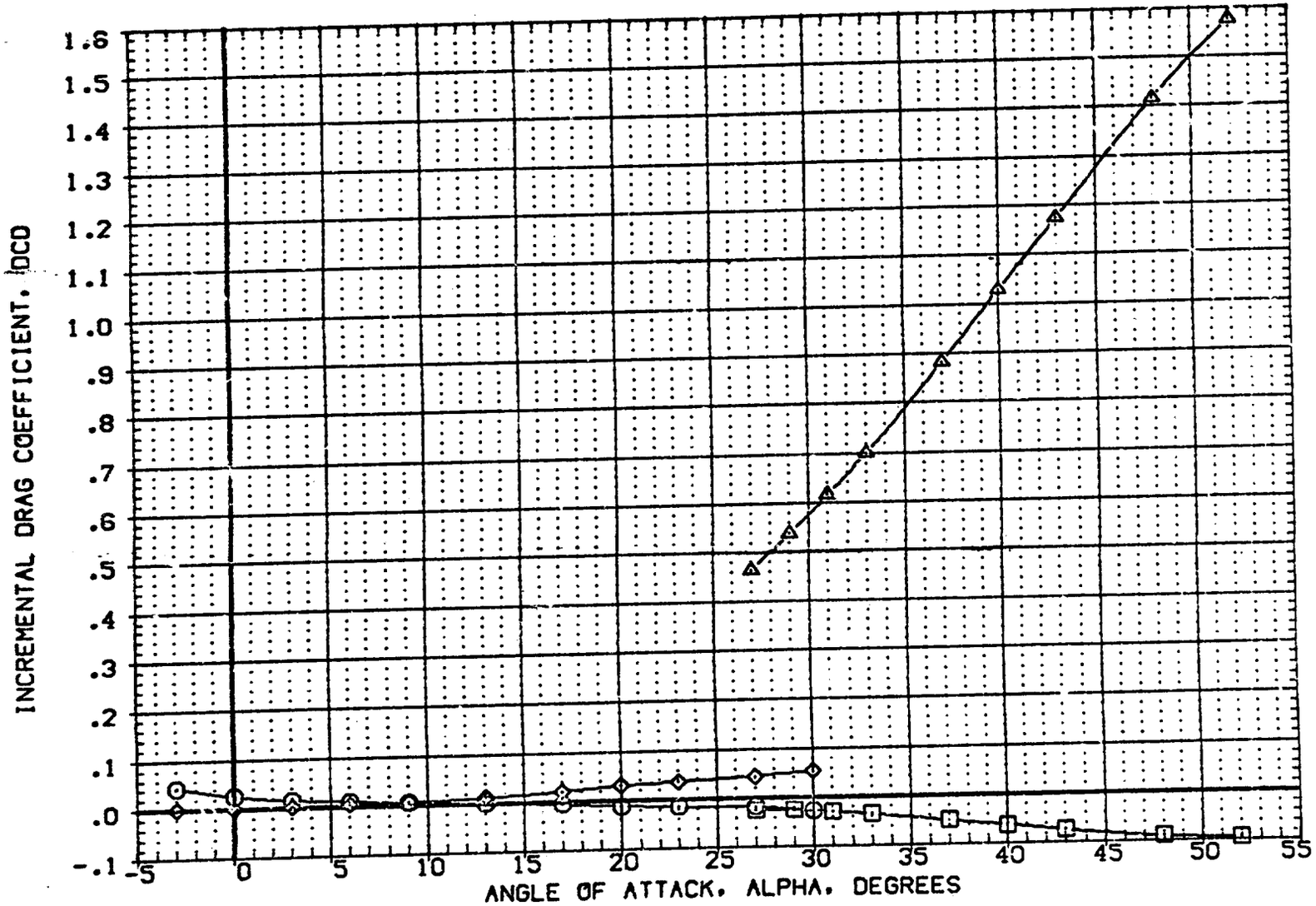


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY021)	○	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	-44.000	-14.250	54.920
(HBY019)	□	AMES 3.5-163 0A59 (B17C7M4F5)(W103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	⊠	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

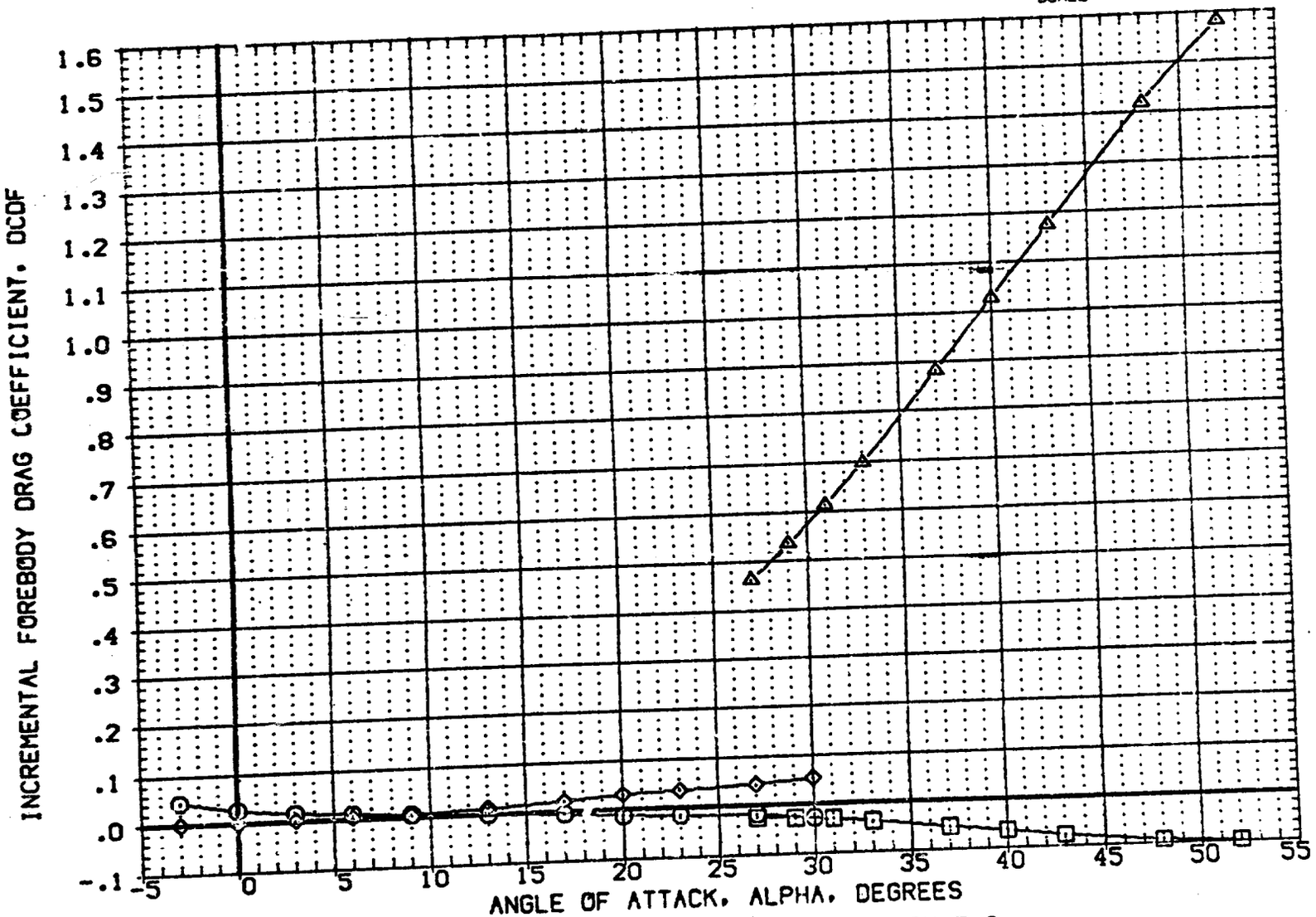


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY021)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(HBYC19)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

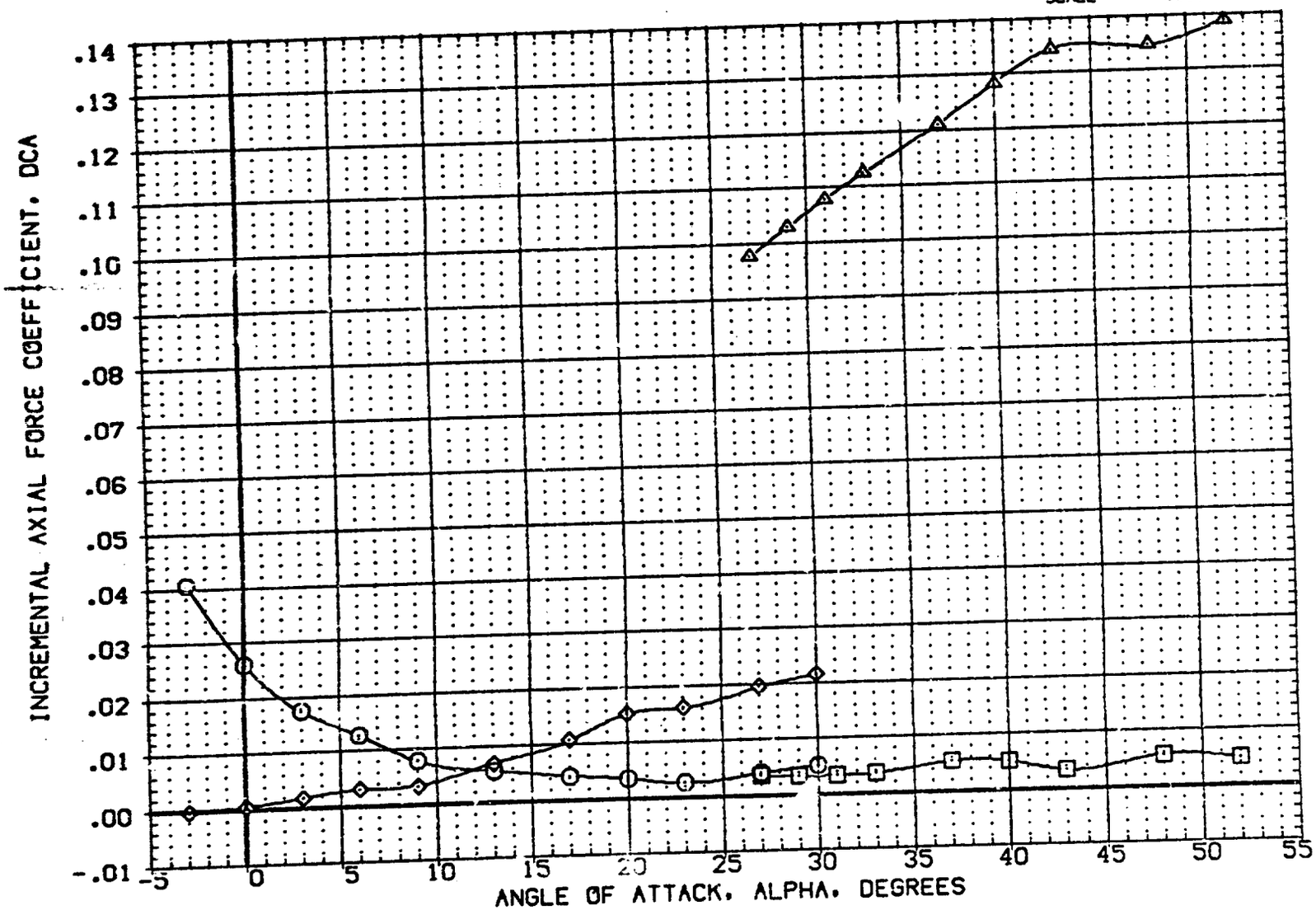


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY021)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(HBY019)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

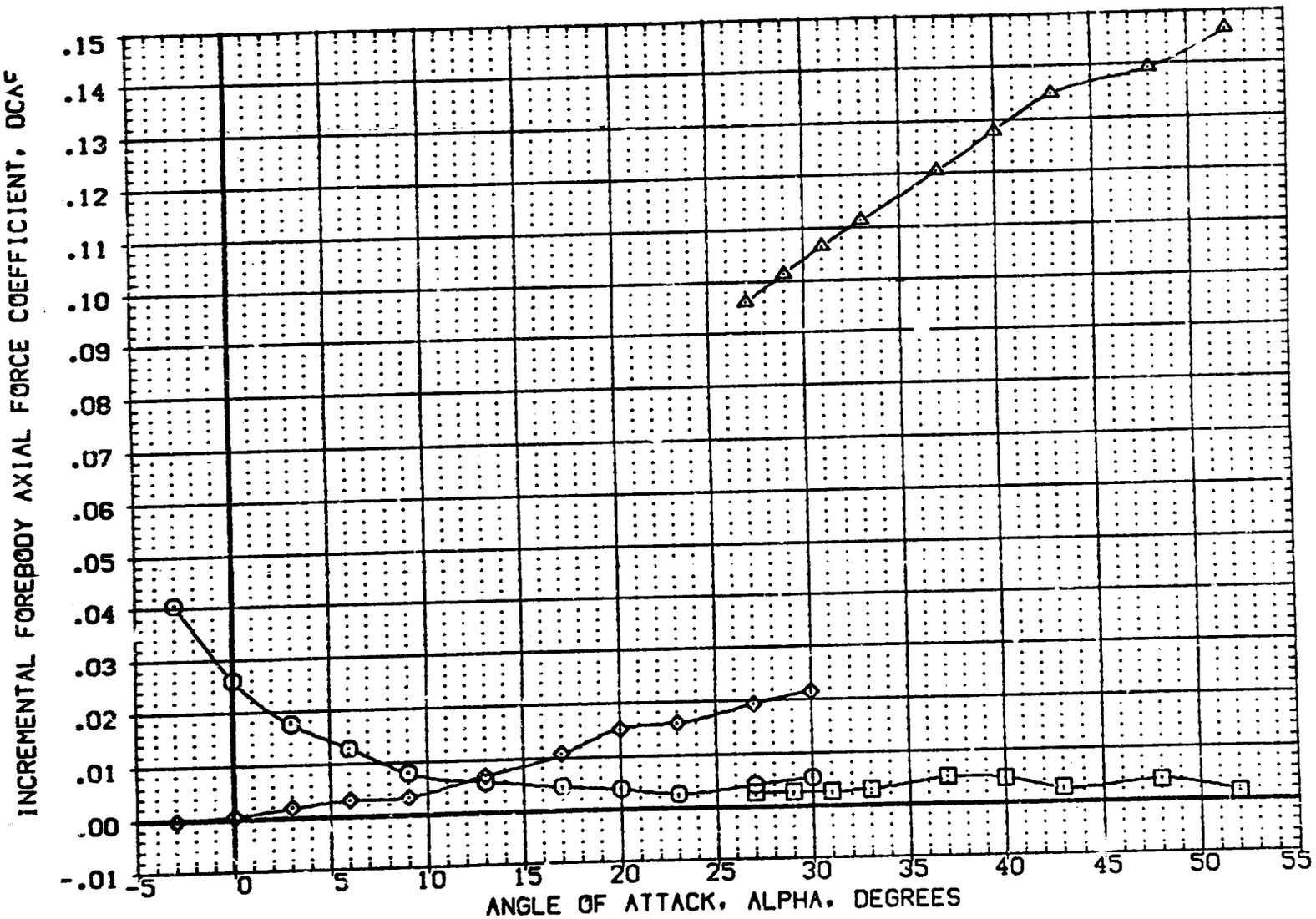


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPOBRK
(EBY021)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY019)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBYC24)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

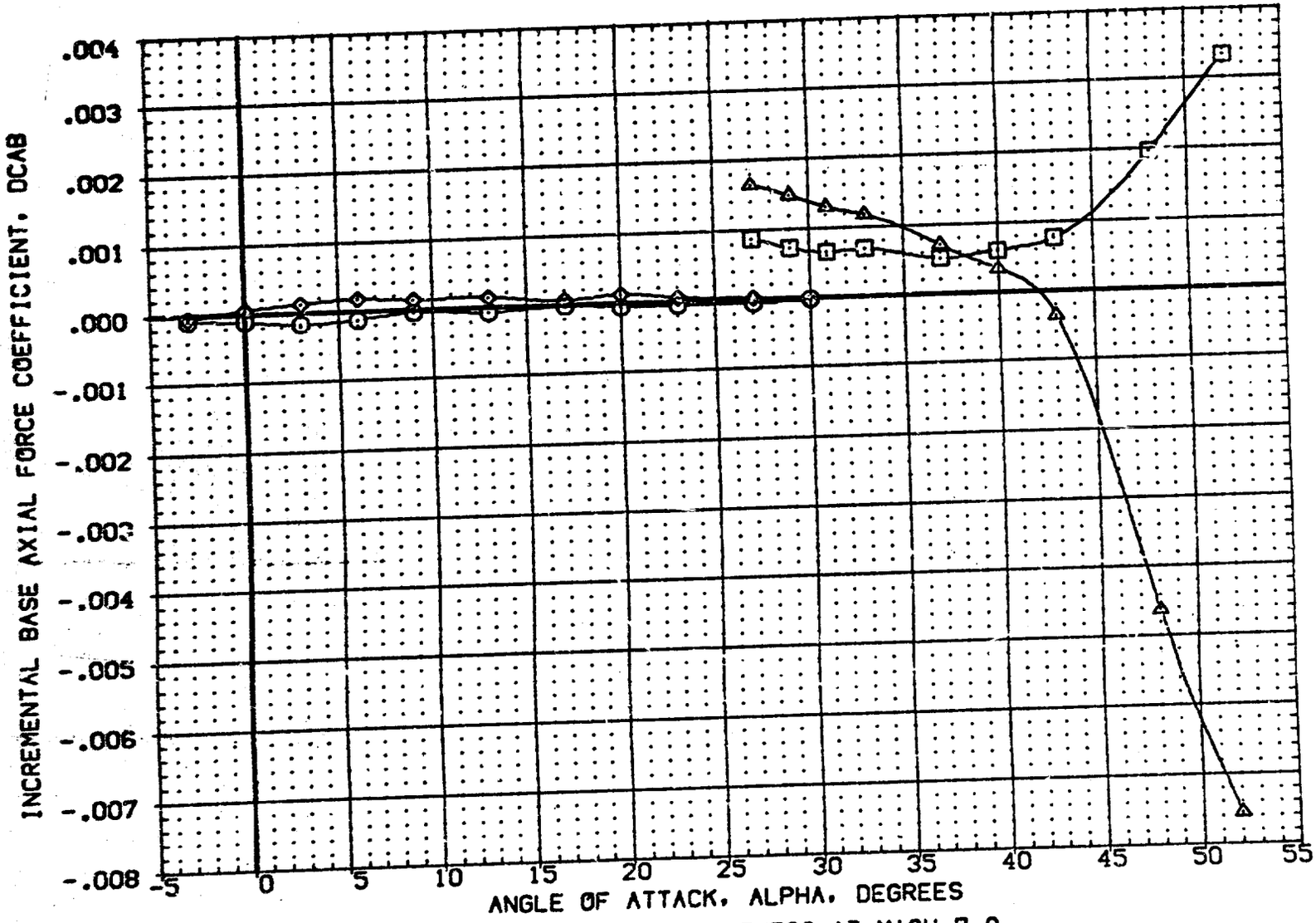


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

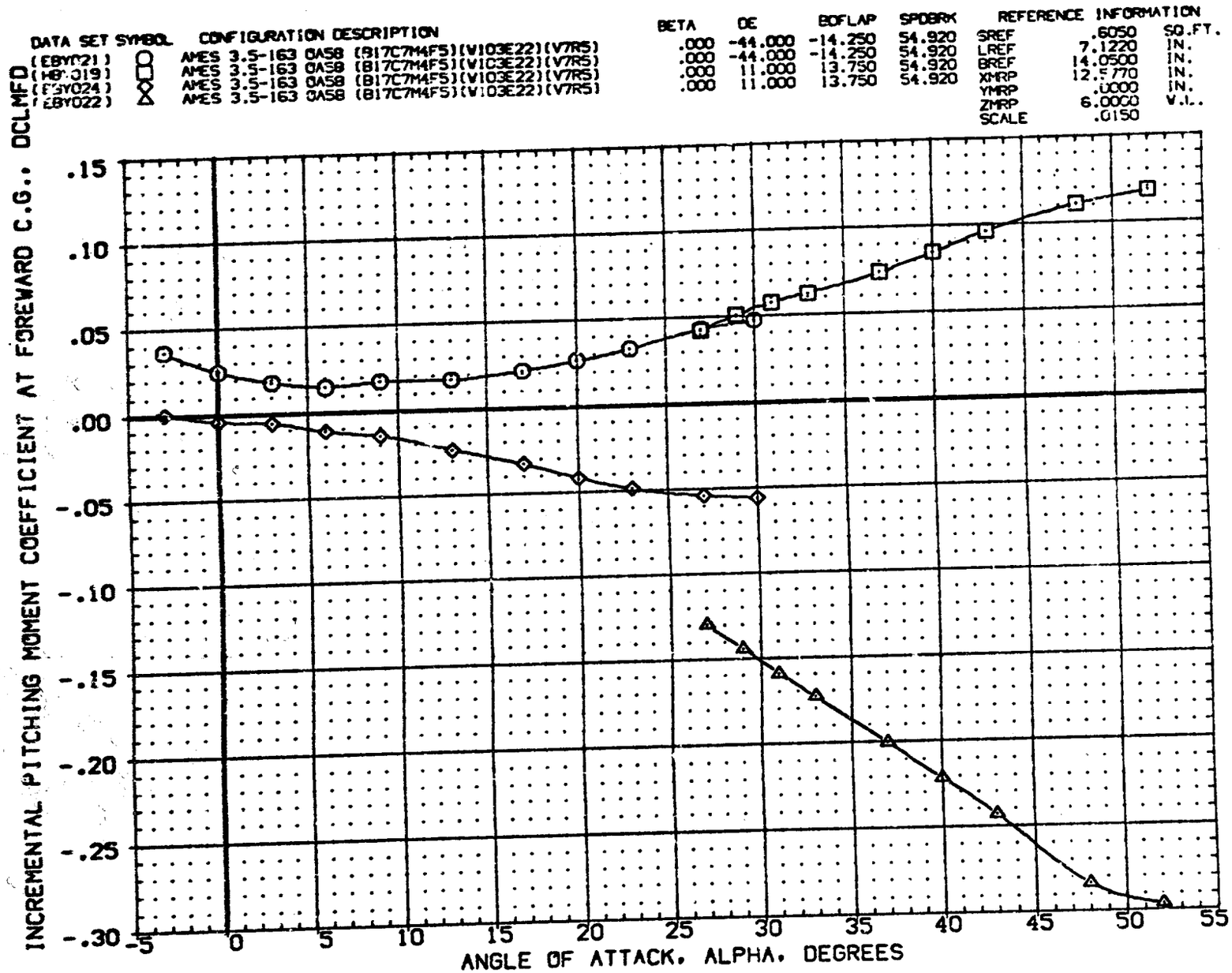


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPDBRK
(EBY021)	□	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(HBY019)	□	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY024)	◇	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920
(EBY022)	△	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

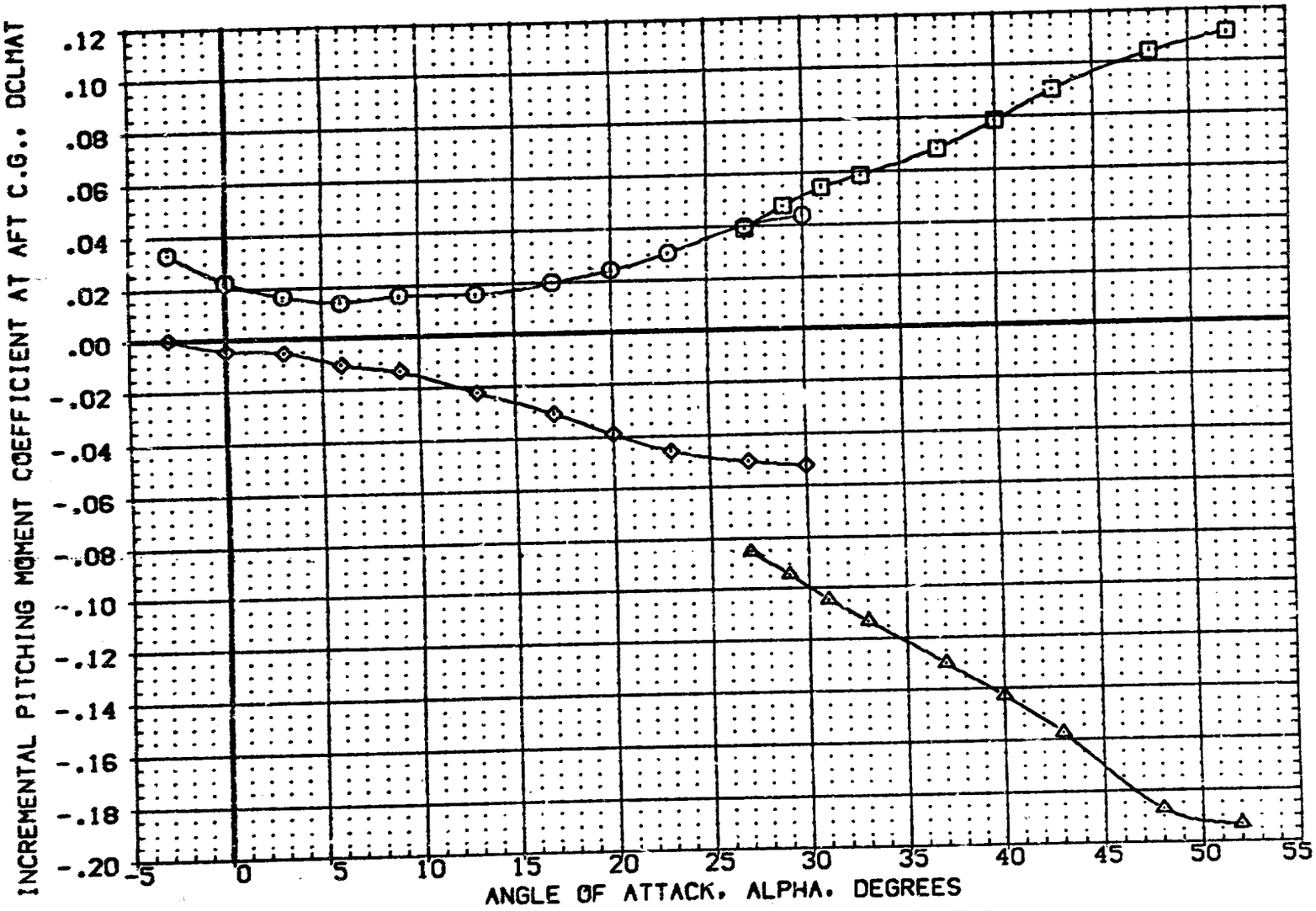


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

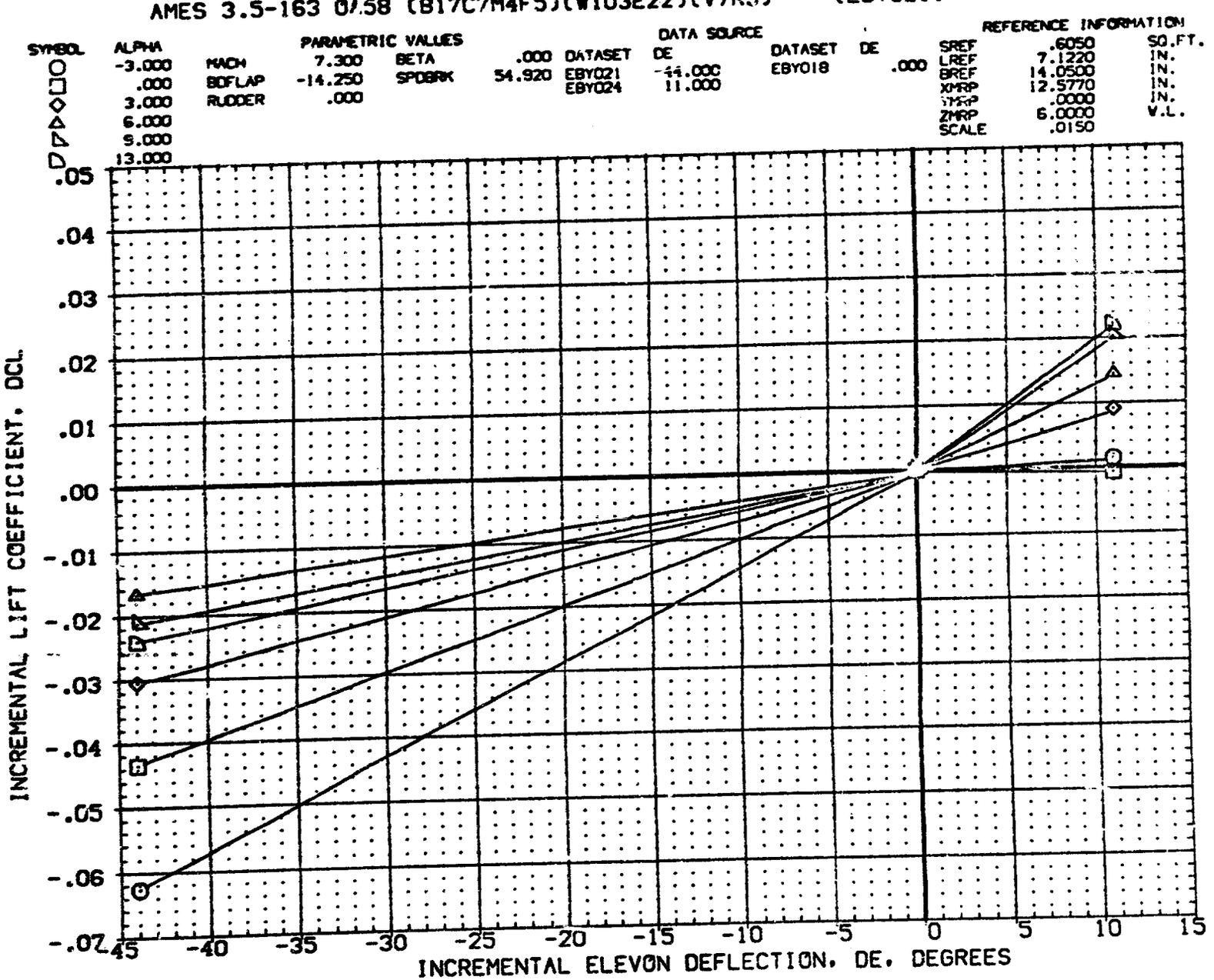


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

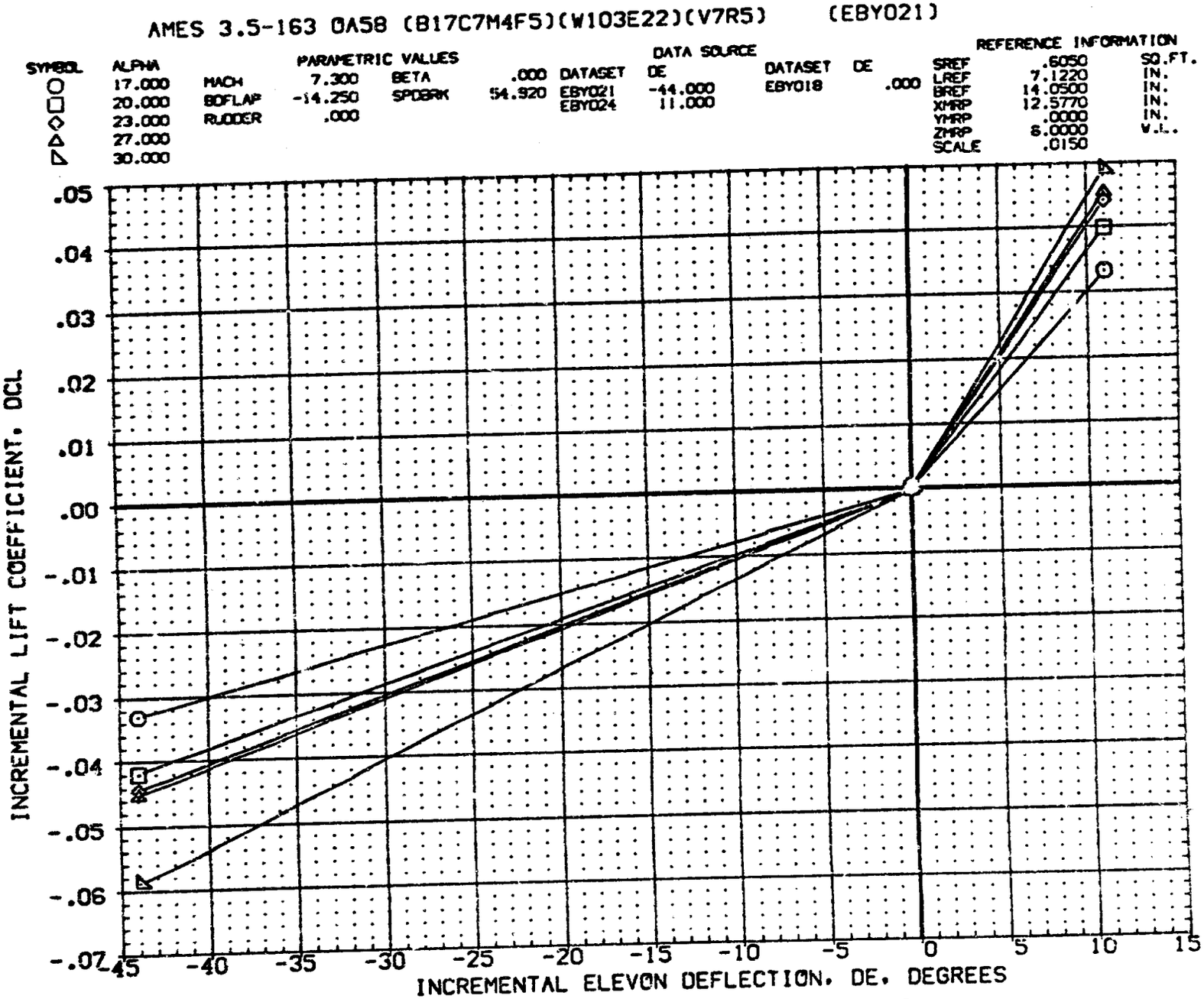


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

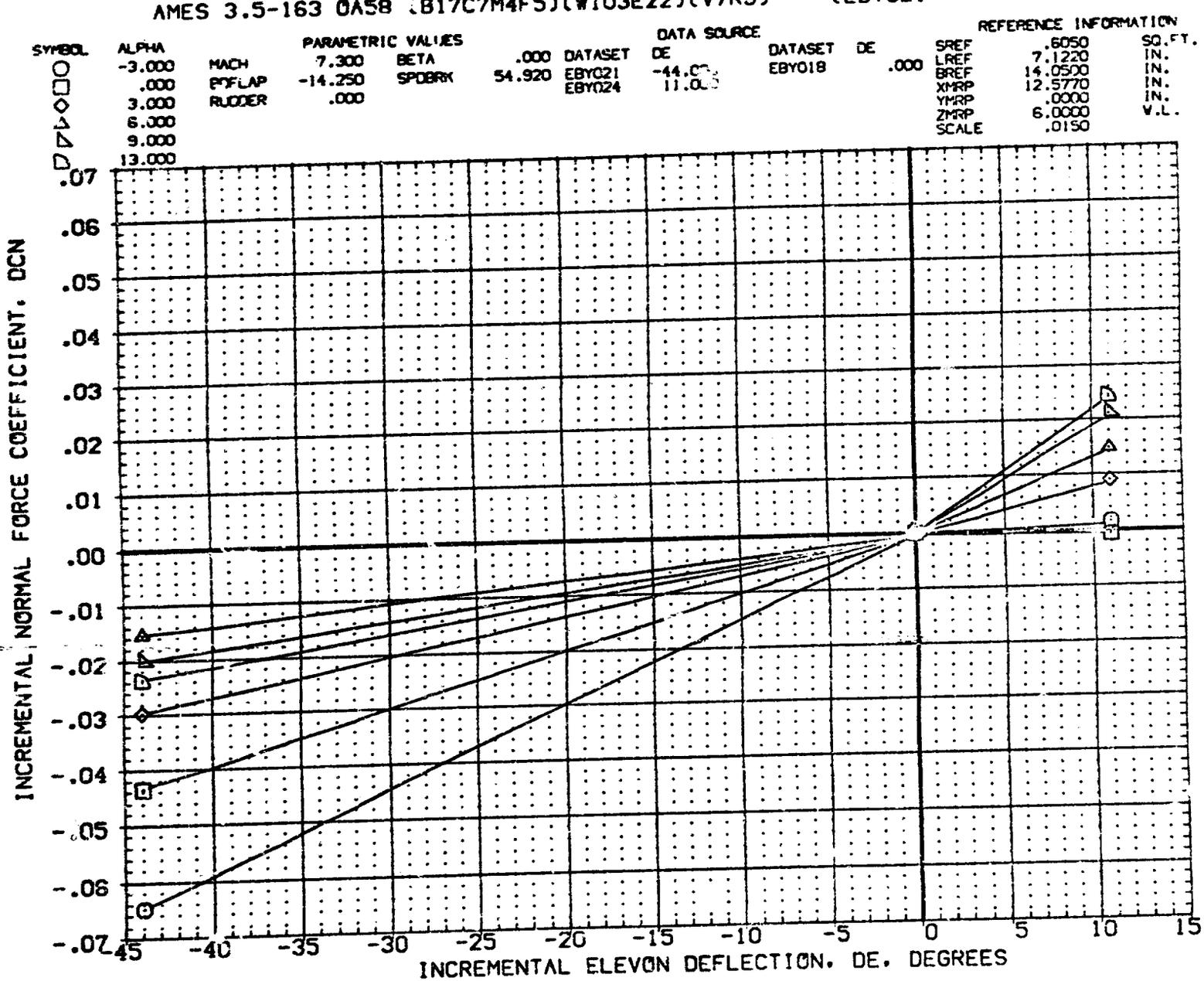


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

C-4

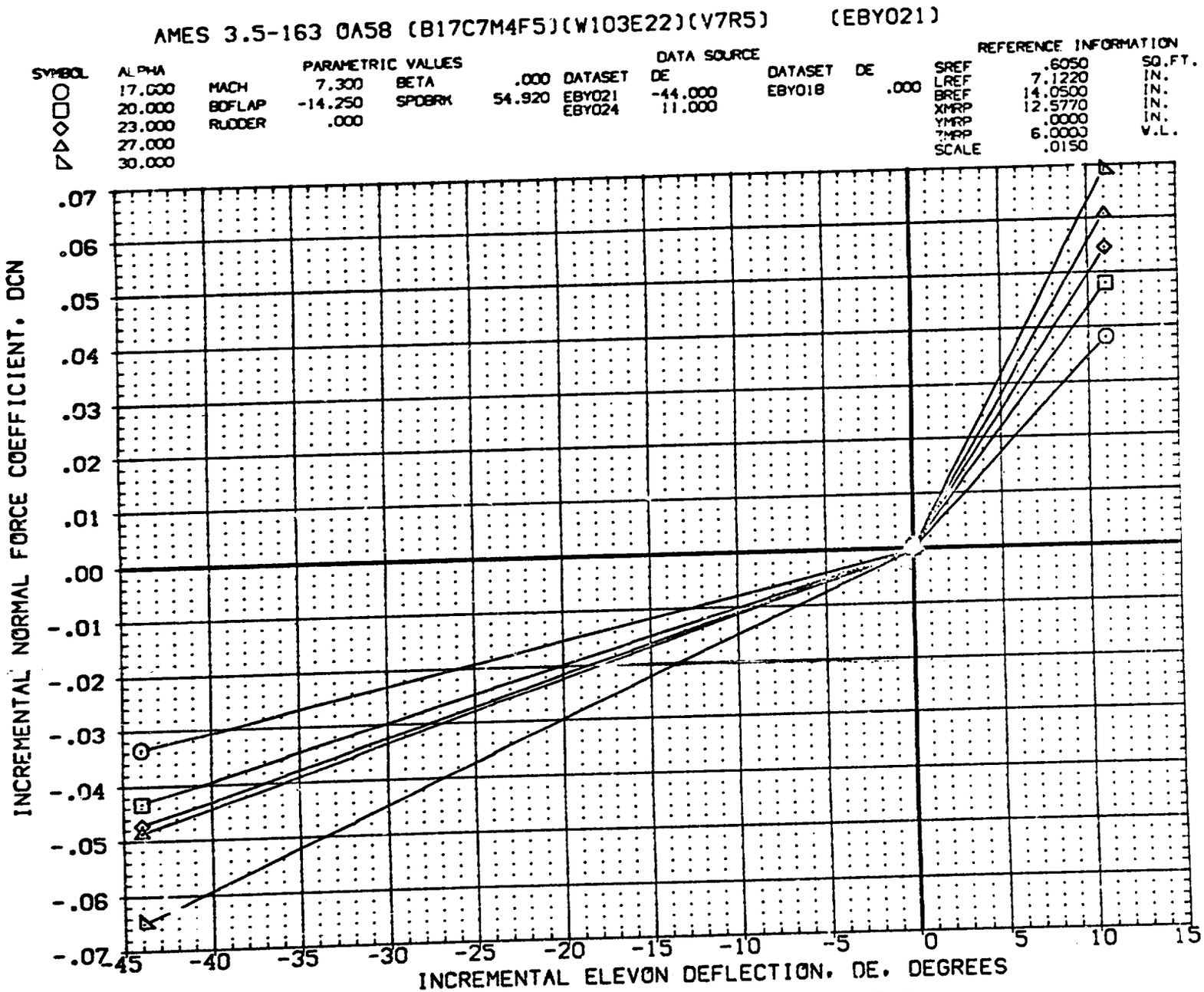


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

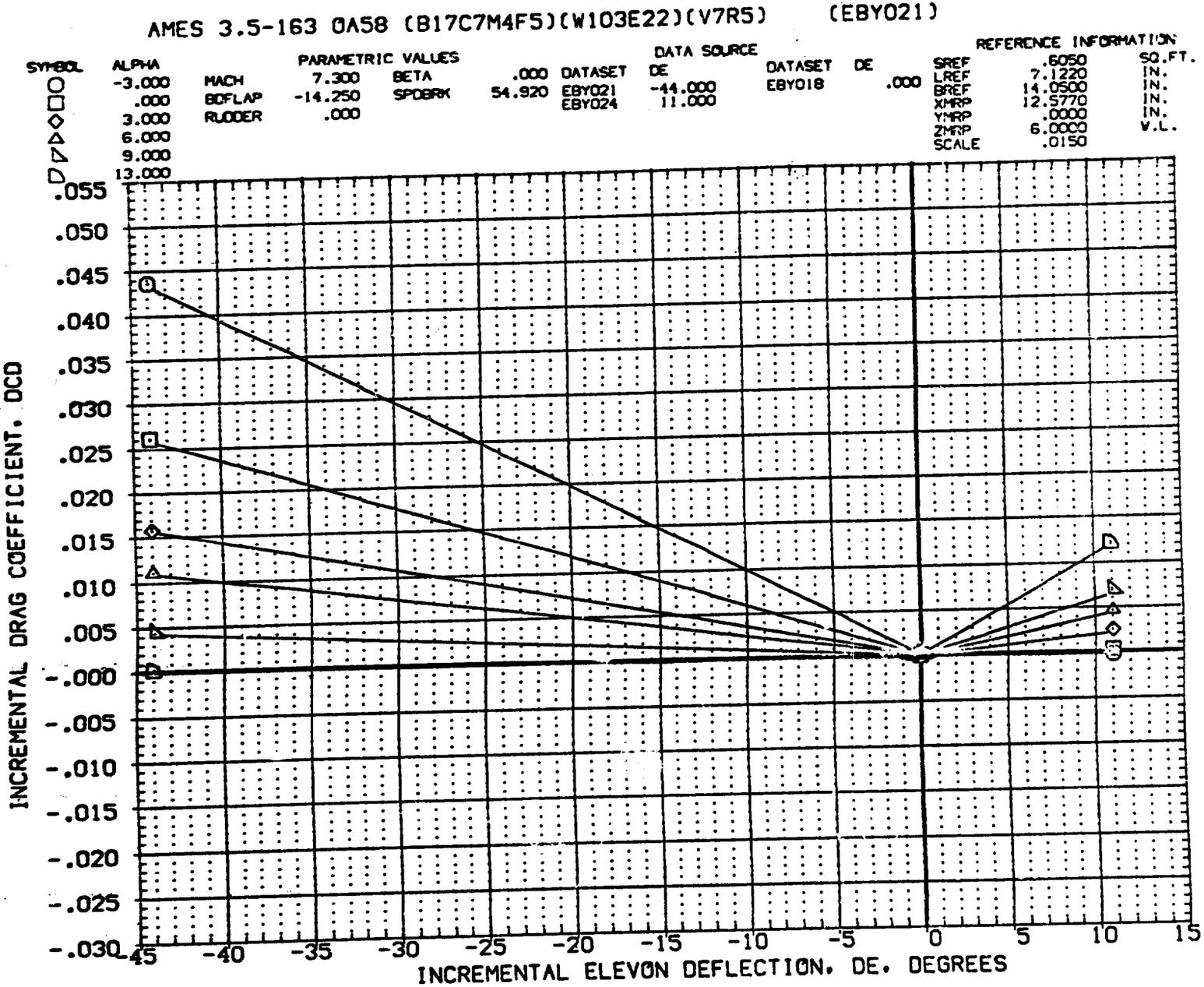


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

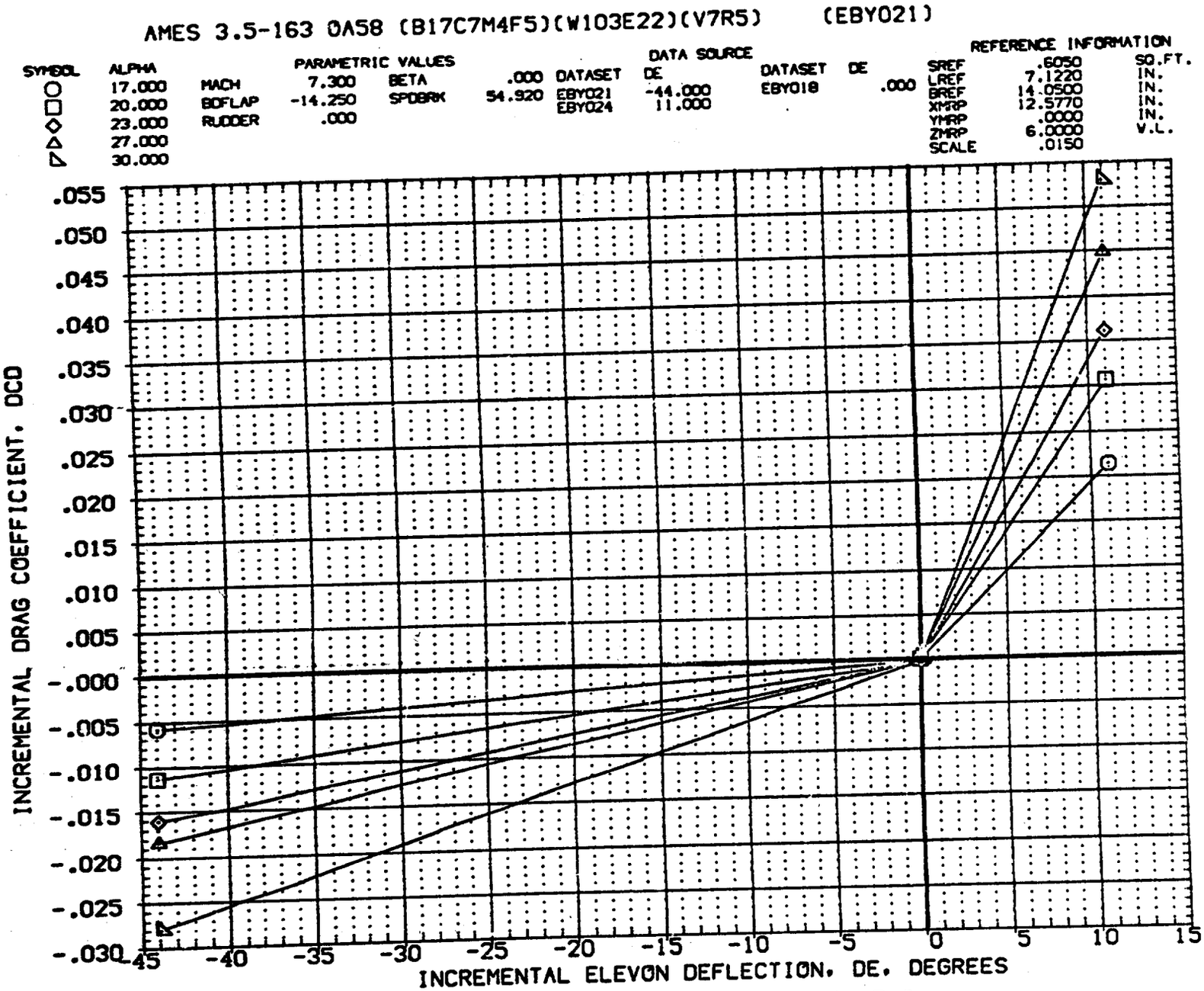


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

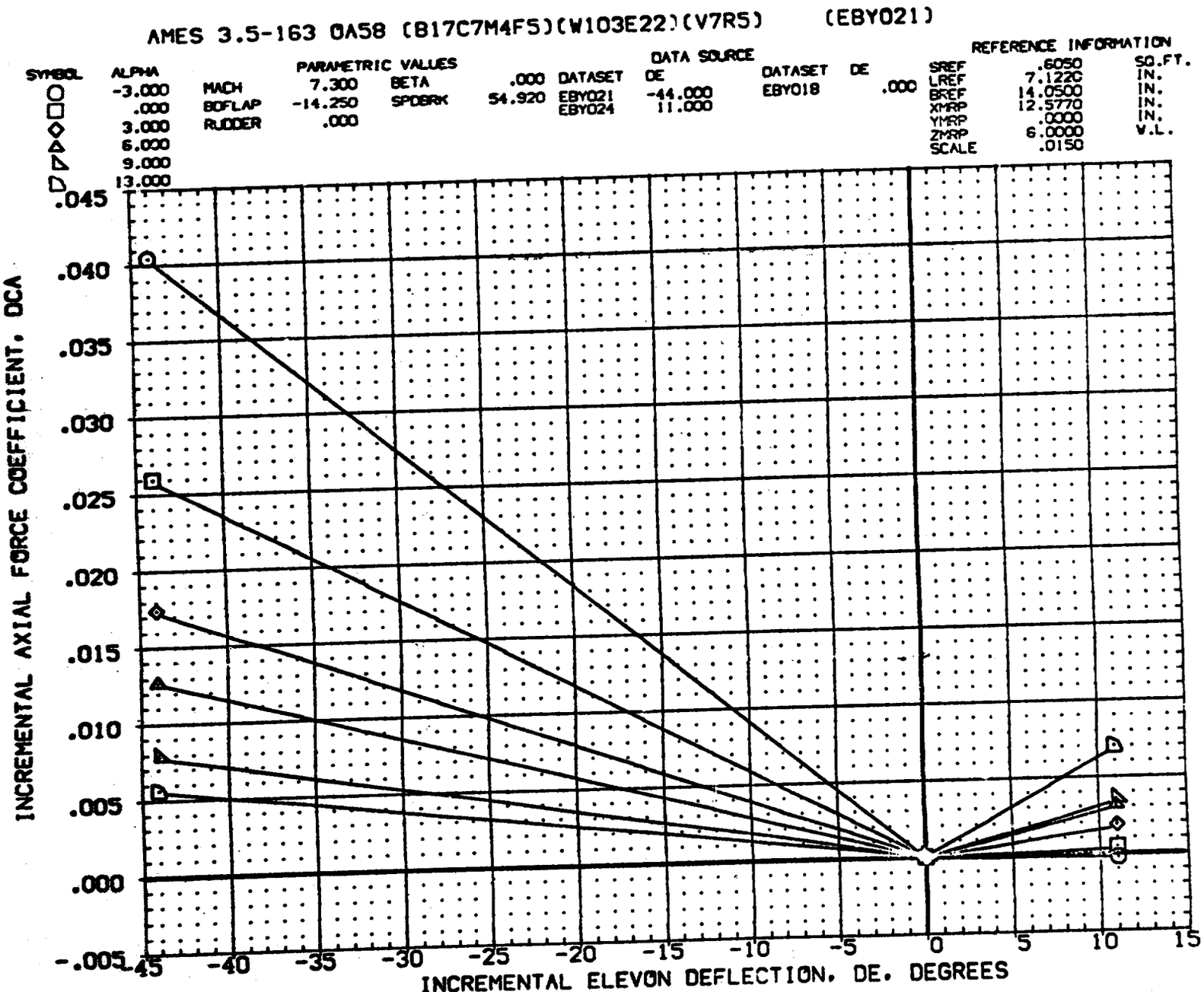


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

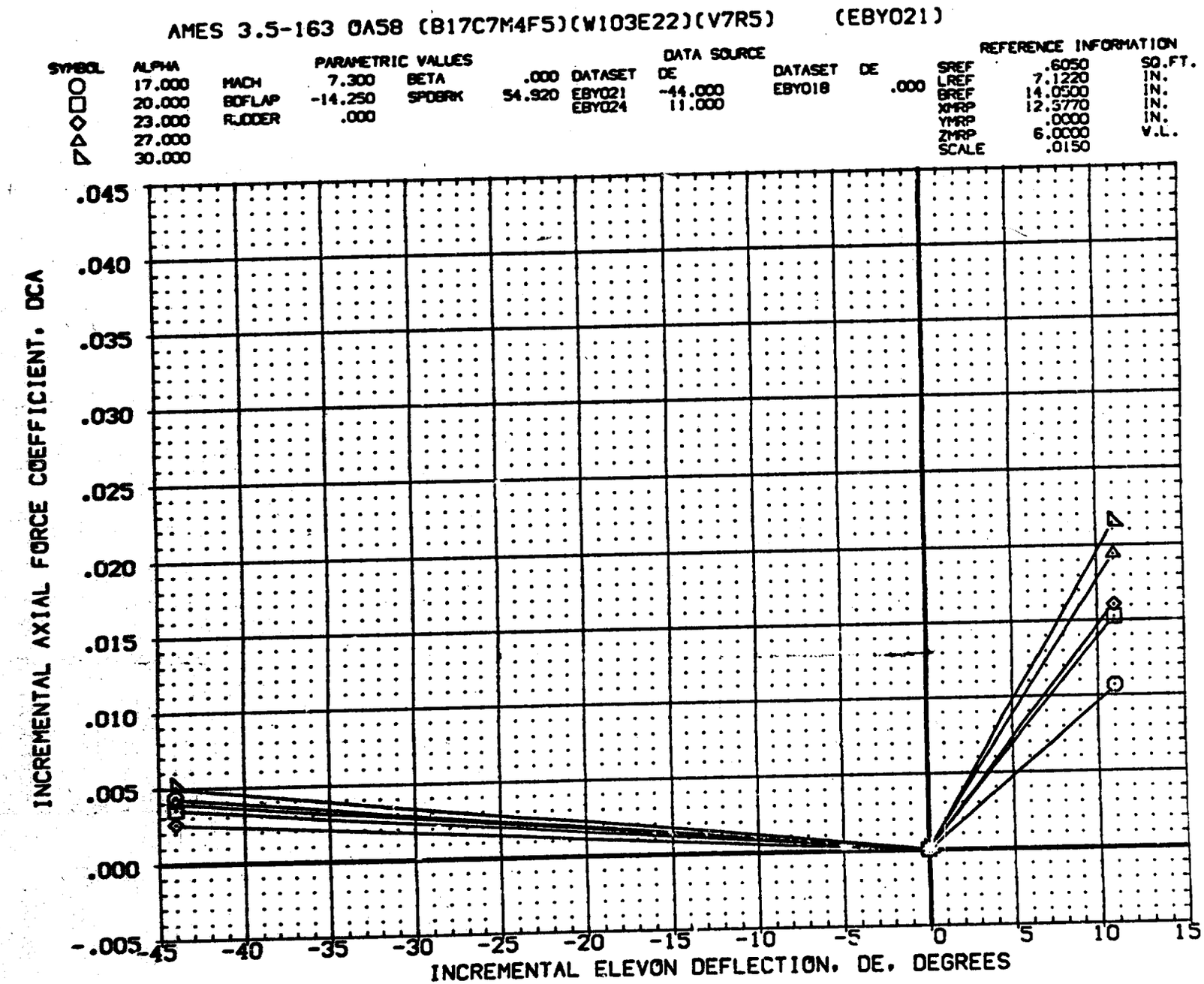


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

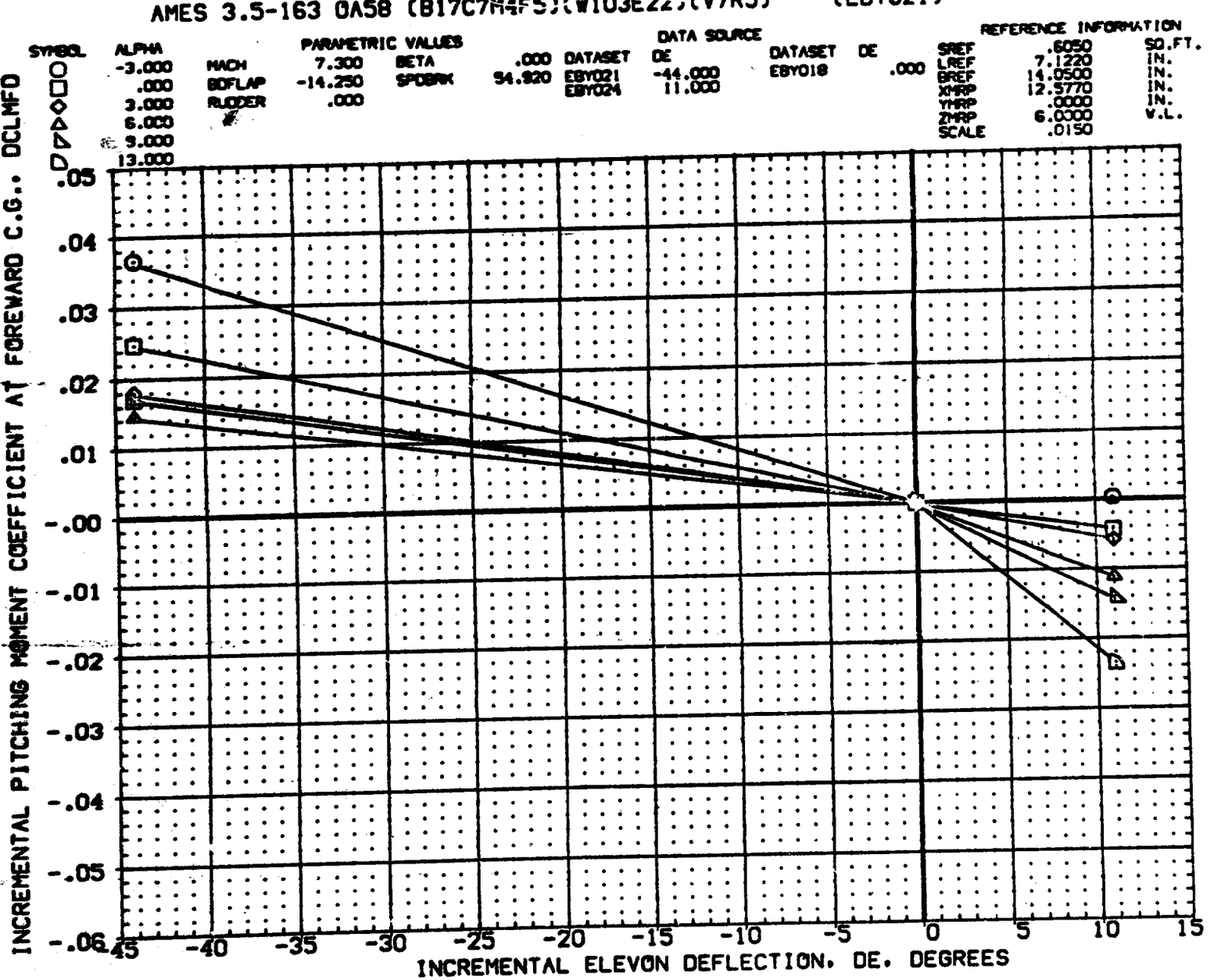


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

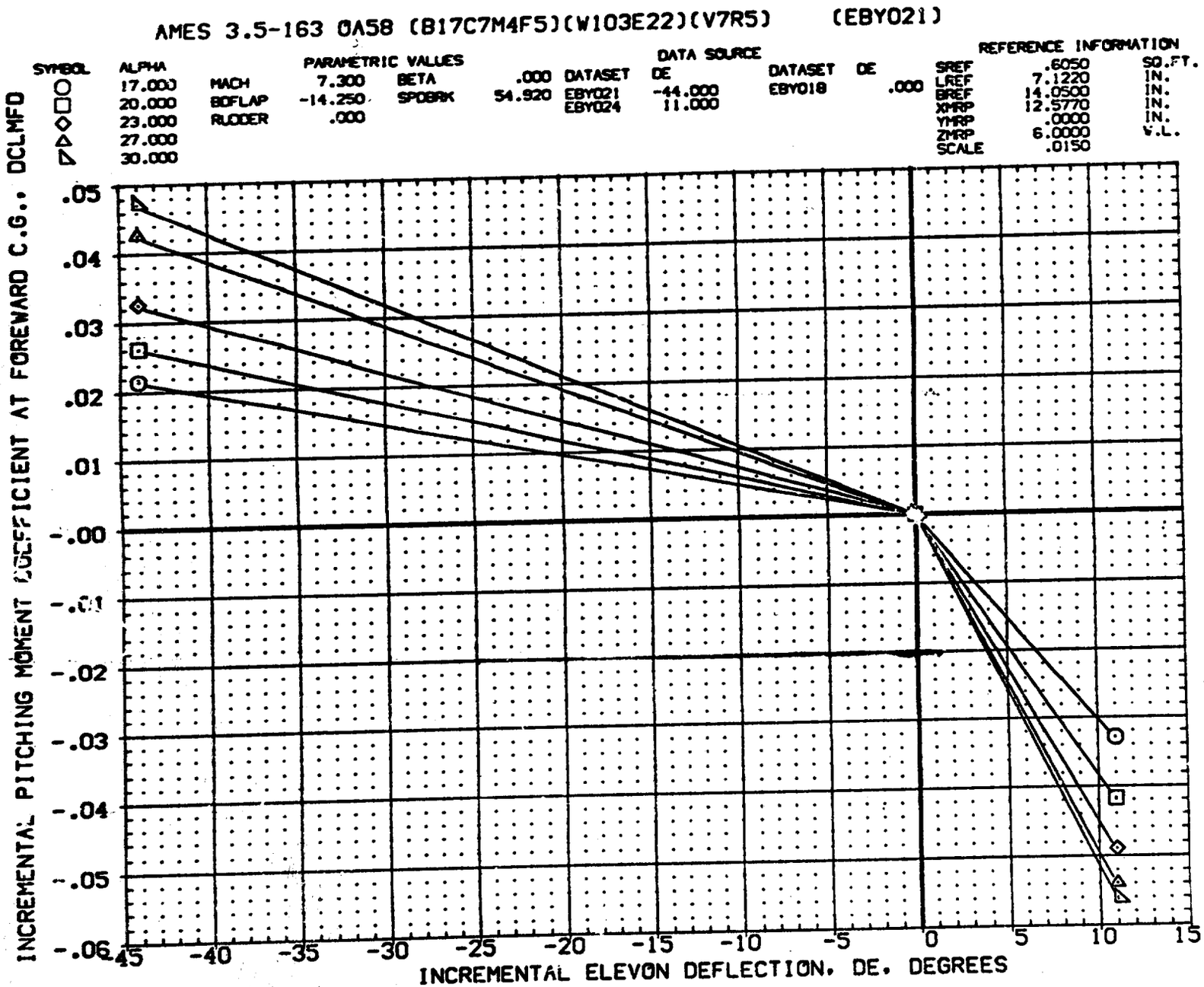


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY021)

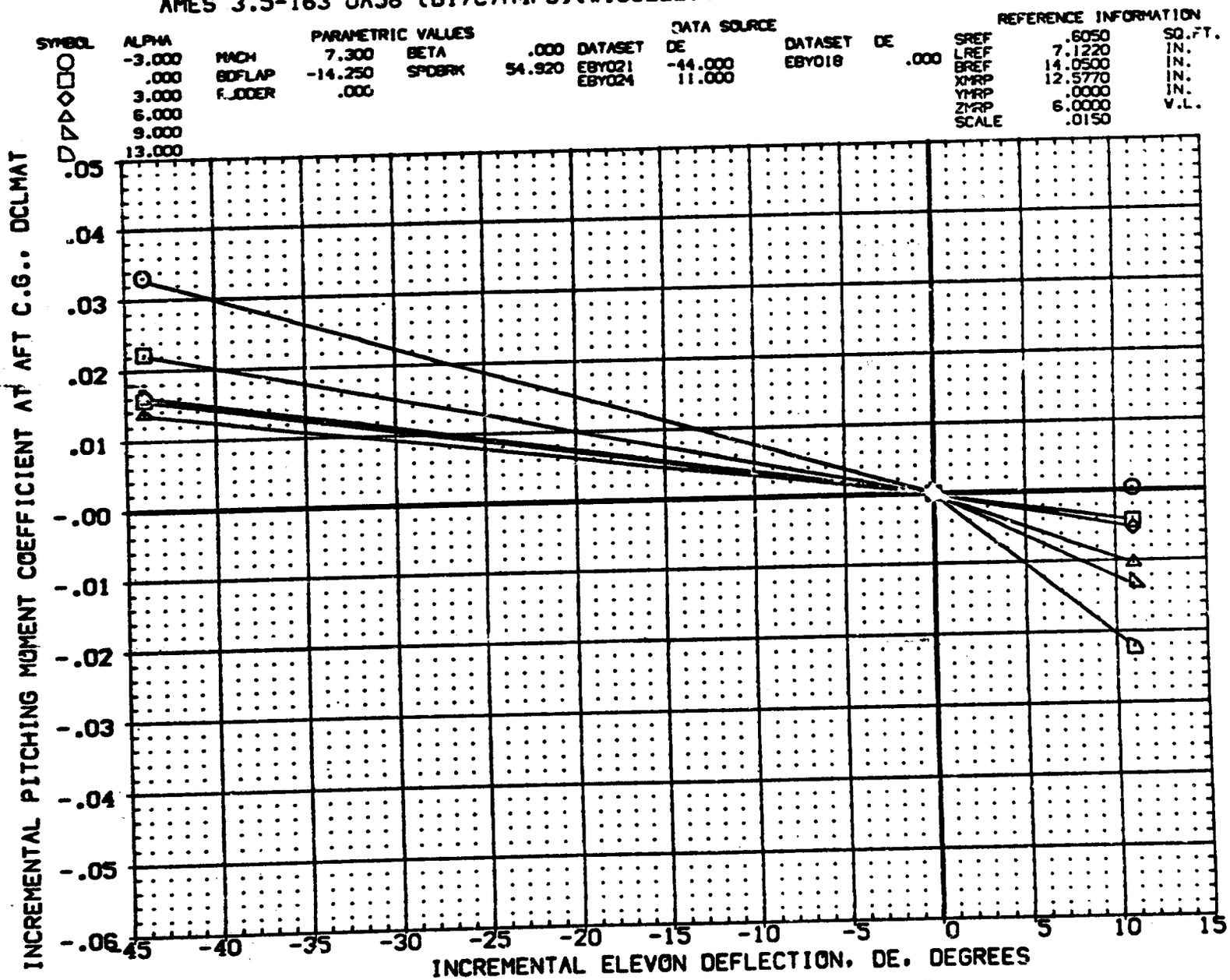


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

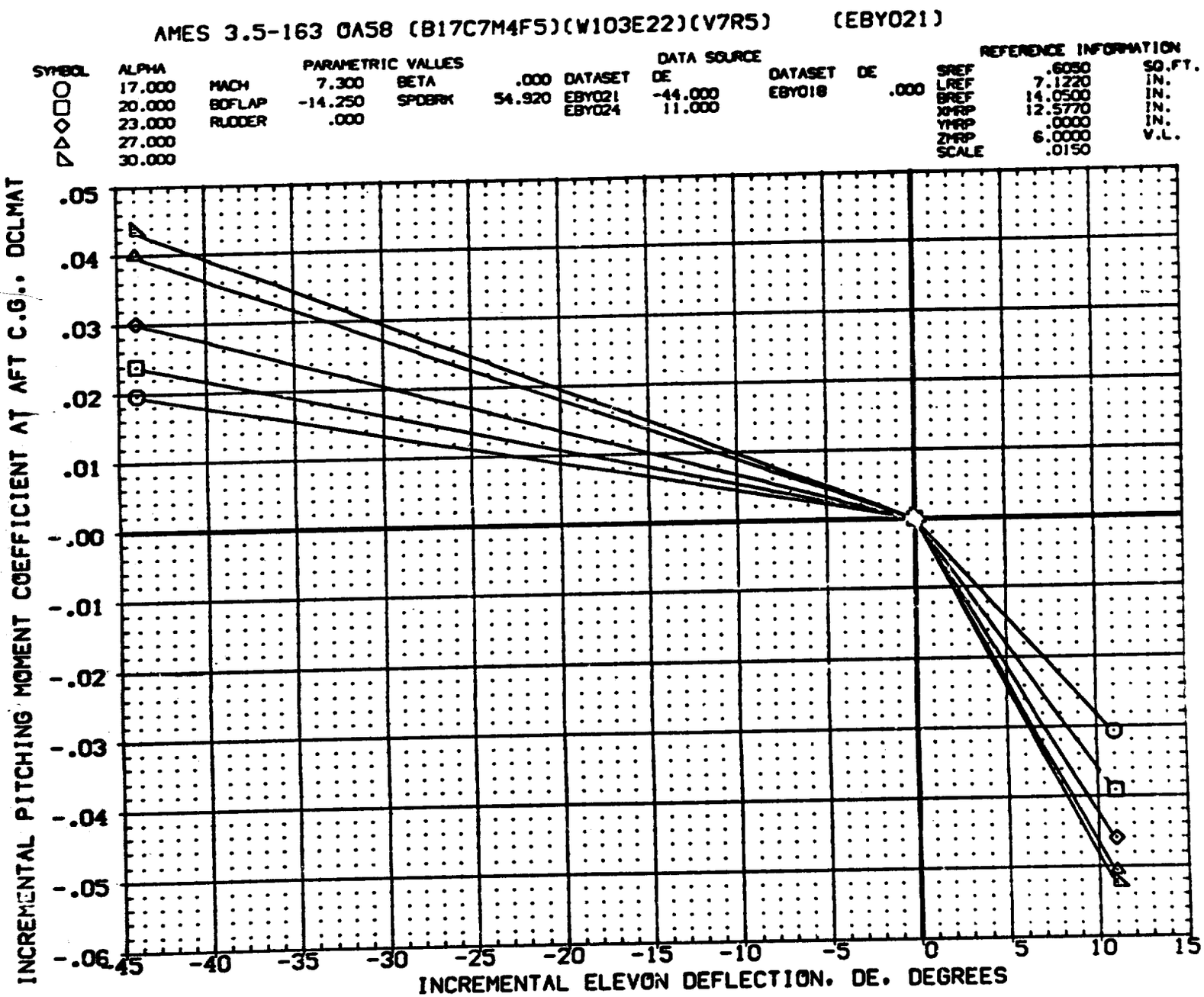


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

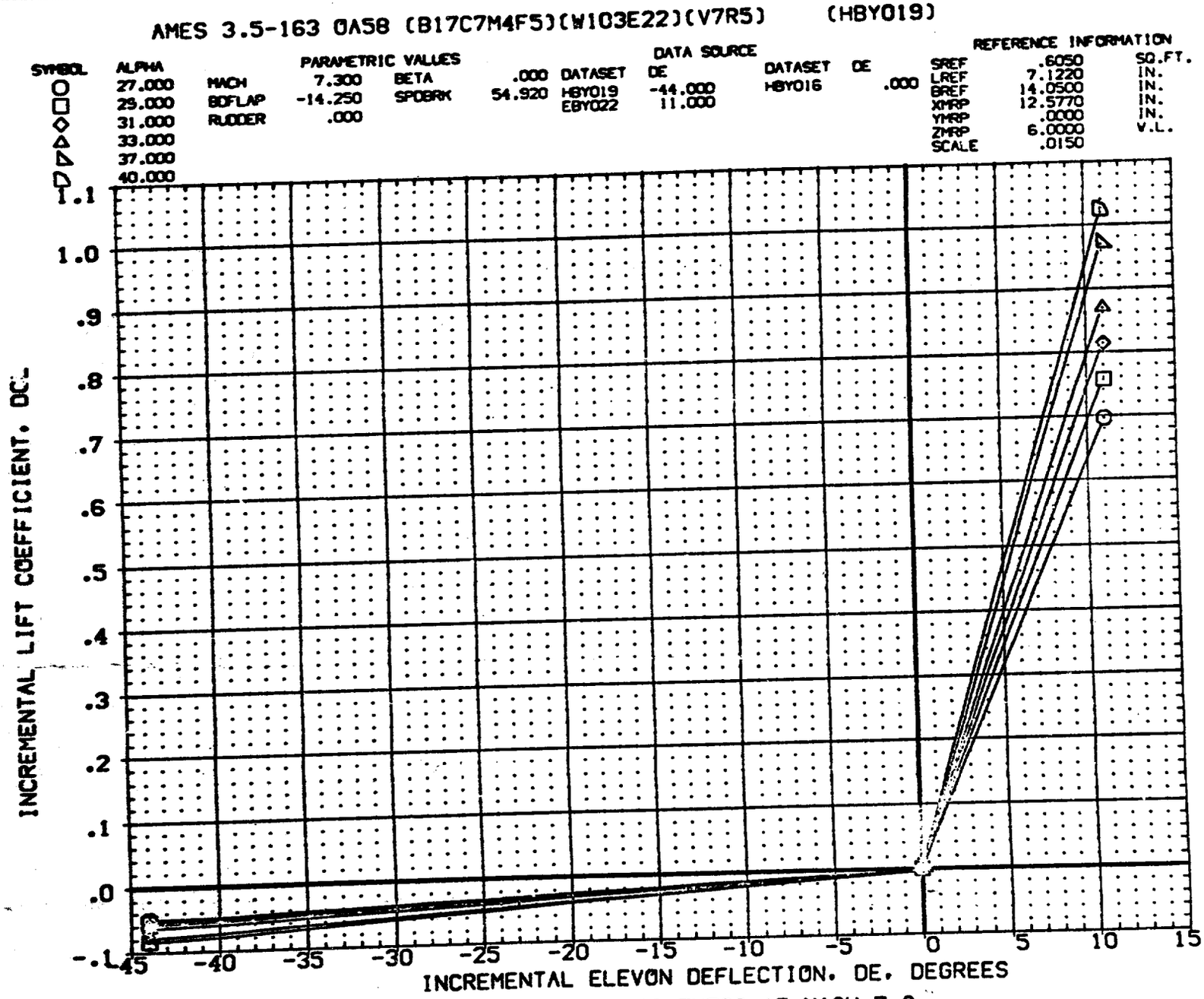


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (HBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE	
□	49.000	BOFLAP	-14.250	SPDBRK	54.920	HBY019	-44.000	HBY016	.000	
◇	52.000	RUDDER	.000			EBY022	11.000			

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

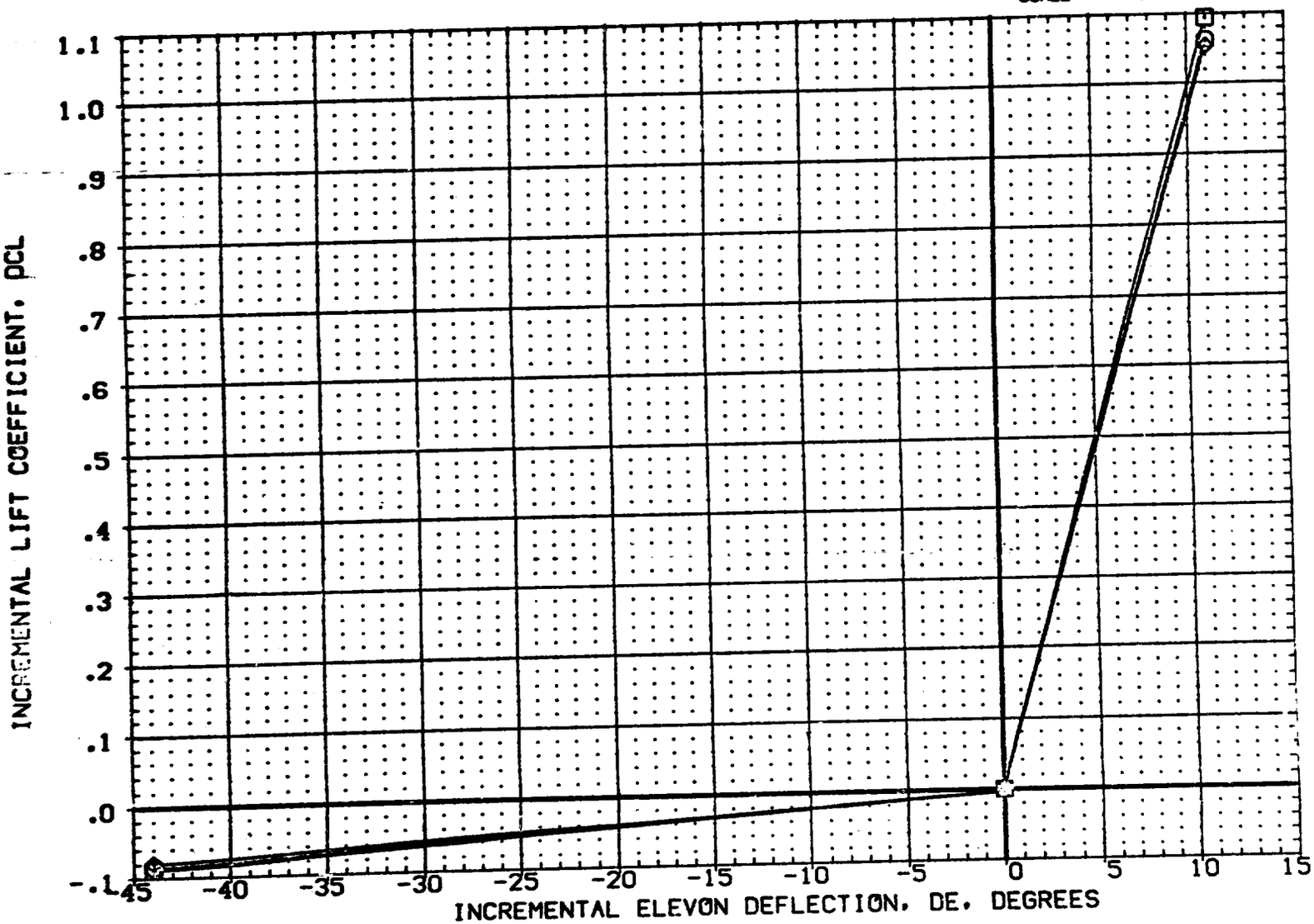


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (HBY019)

SYMBOL	ALPHA
○	27.000
□	29.000
◇	31.000
△	33.000
▷	37.000
⬠	40.000

PARAMETRIC VALUES

MACH	7.300	BETA	.000
BDFLAP	-14.250	SPDBRK	54.320
RUDDER	.000		

DATA SOURCE

DATASET	DE		DATASET	DE	
HBY019	-44.000		HBY016	.000	
EBY022	11.000				

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

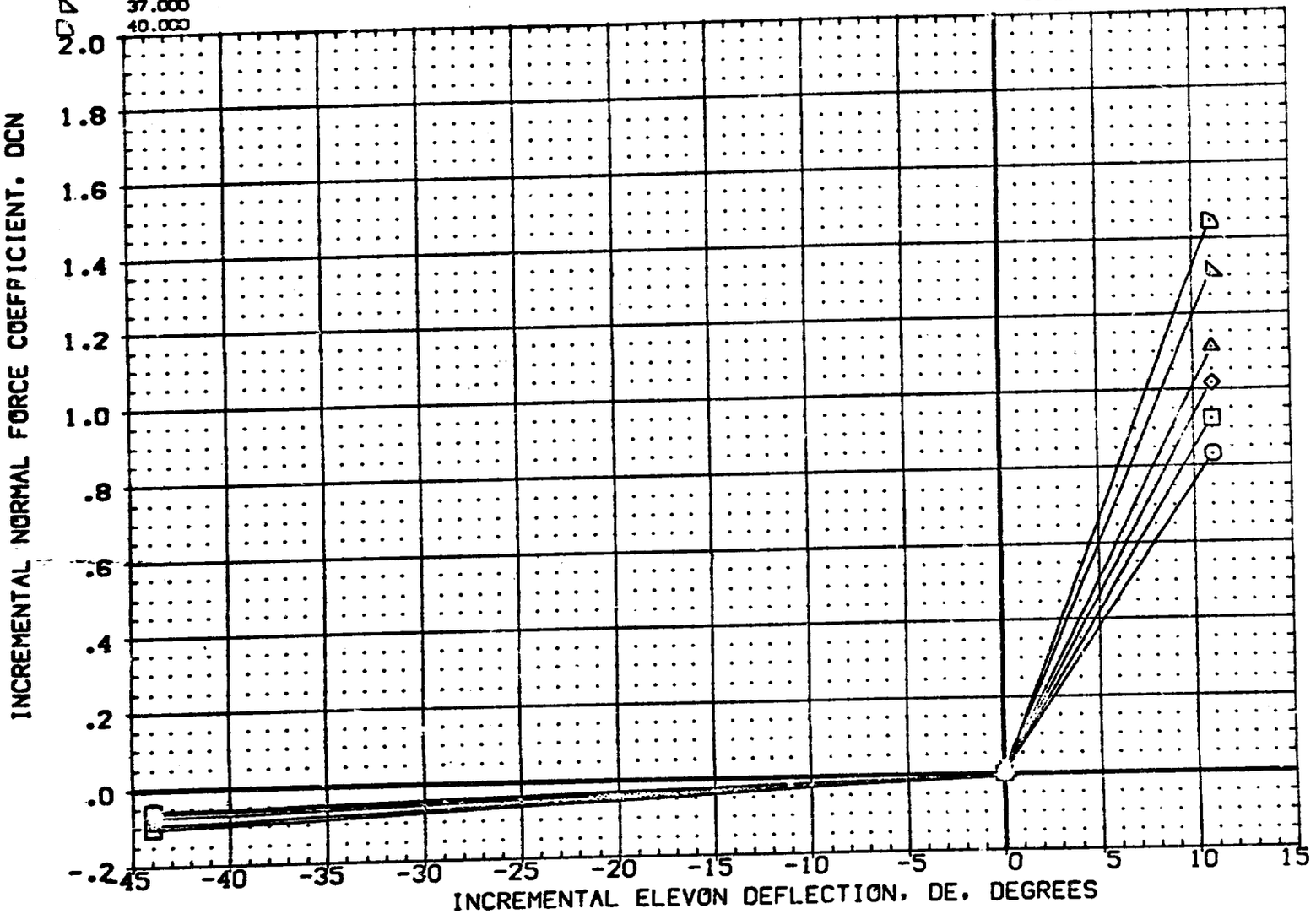


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

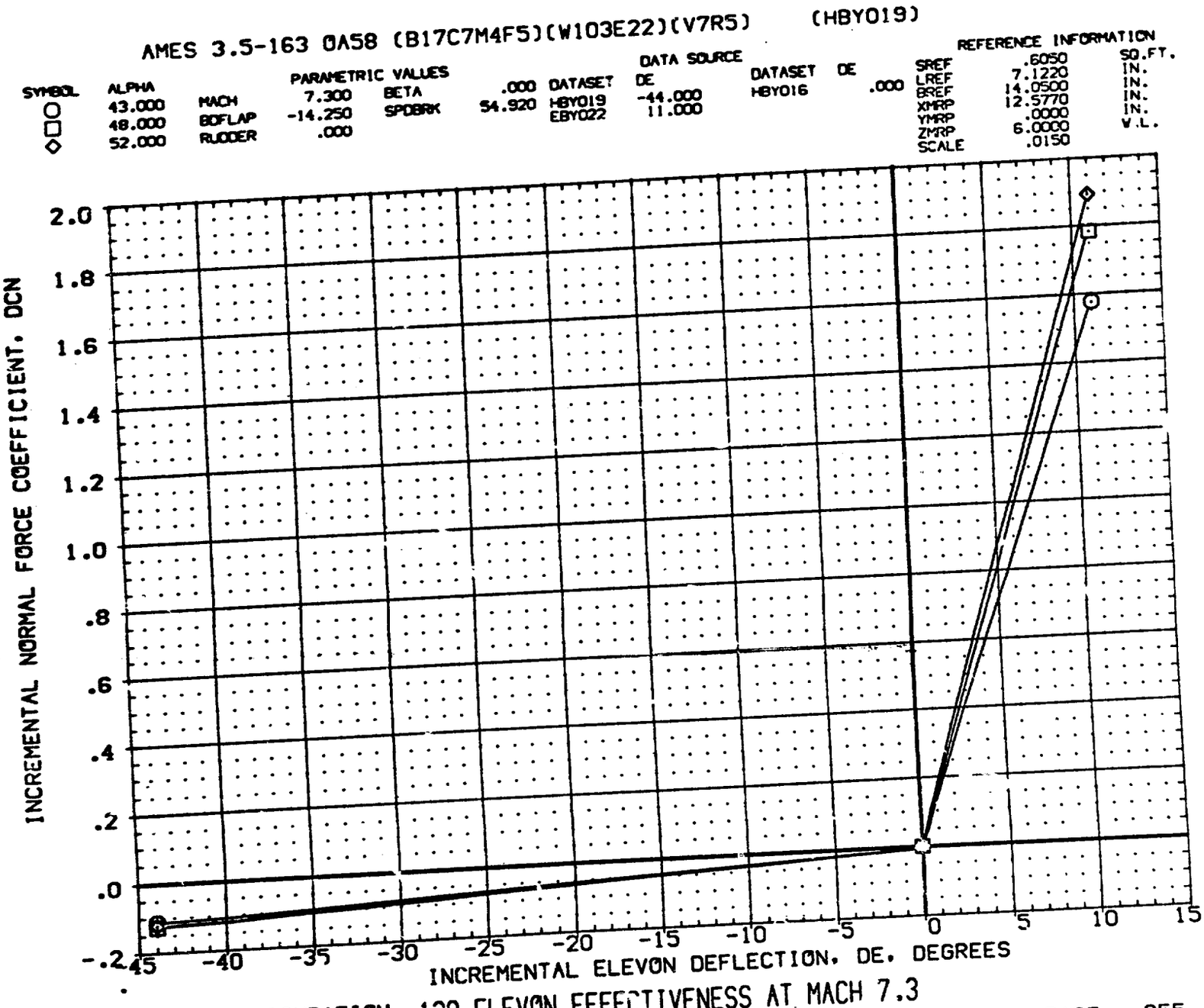


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

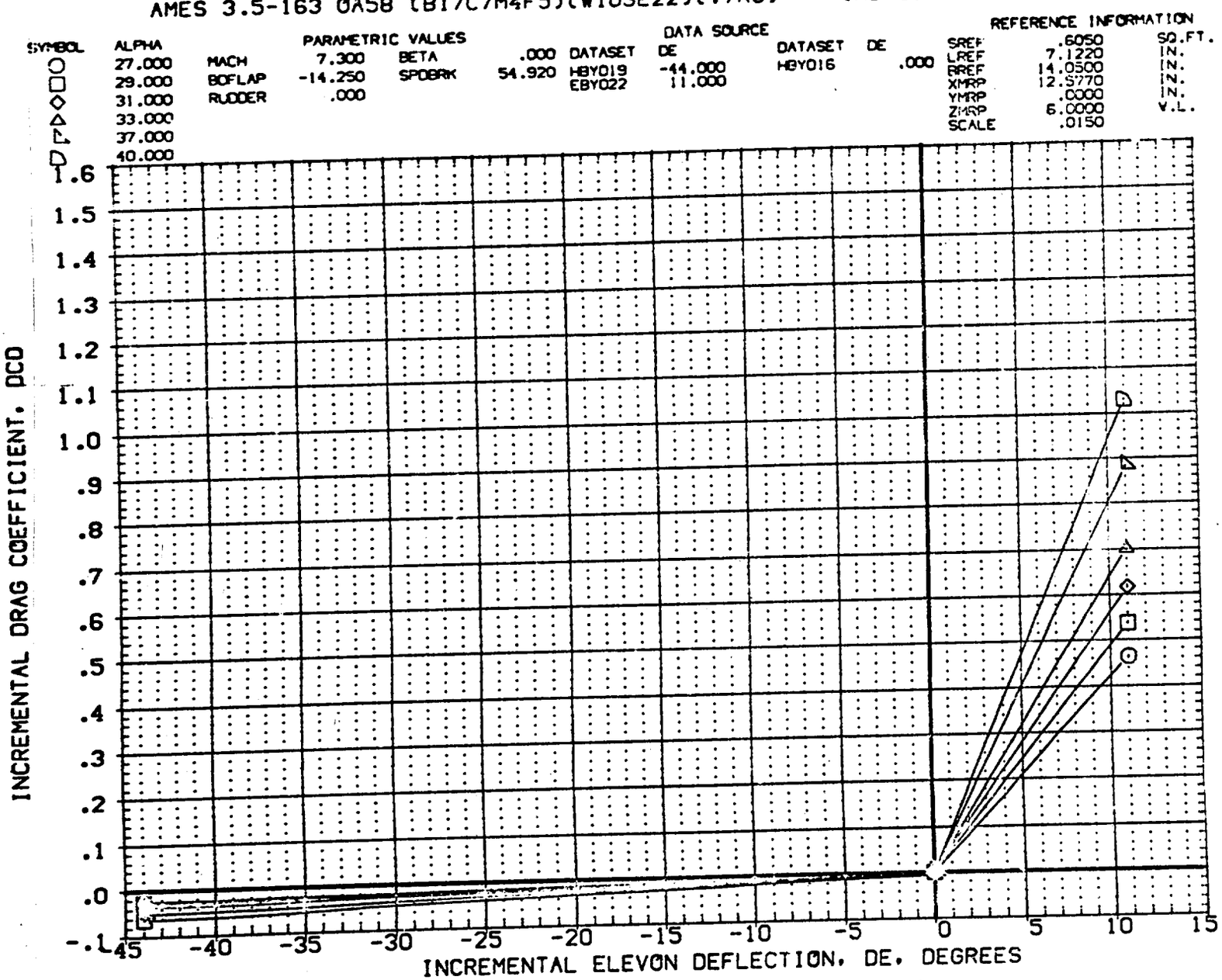


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (HBY019)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE			
○	43.000	MACH	7.300	BETA	.000	DATASET	DE	DATASET	DE
□	48.000	BDFLAP	-14.250	SPDBRK	54.920	HBY019	-44.000	HBY016	.000
◇	52.000	RUDDER	.000			EBY022	11.000		

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

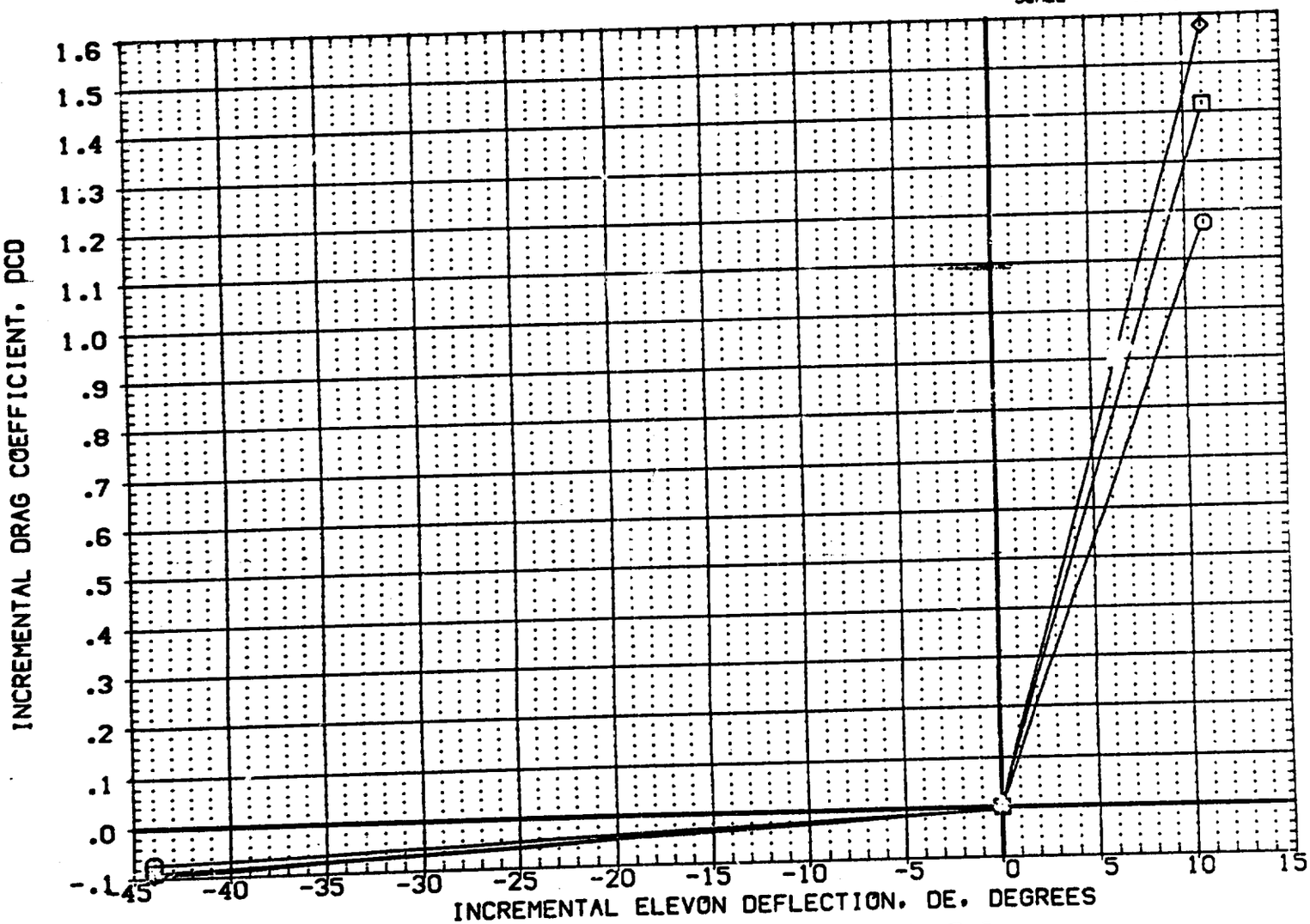


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

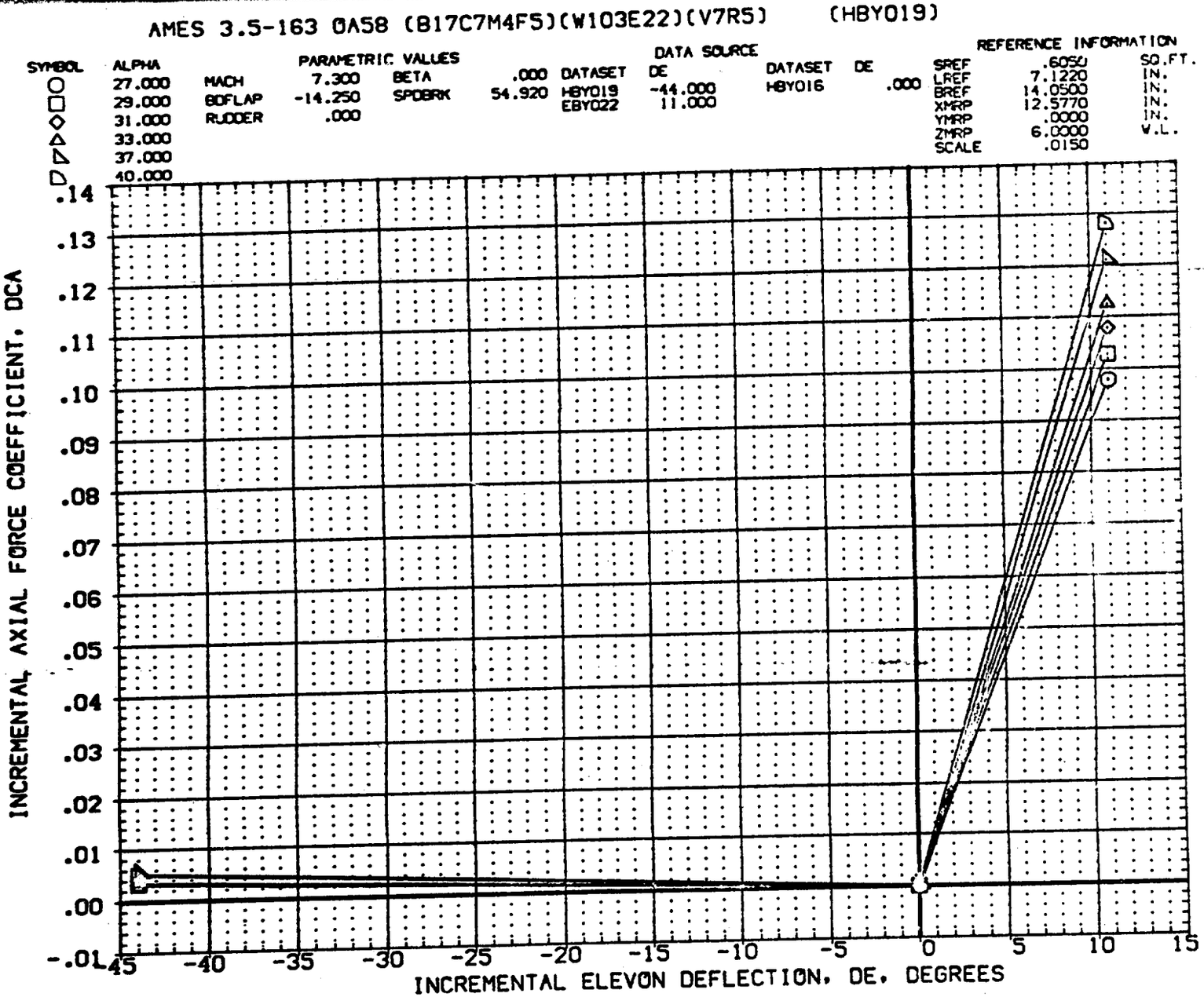


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

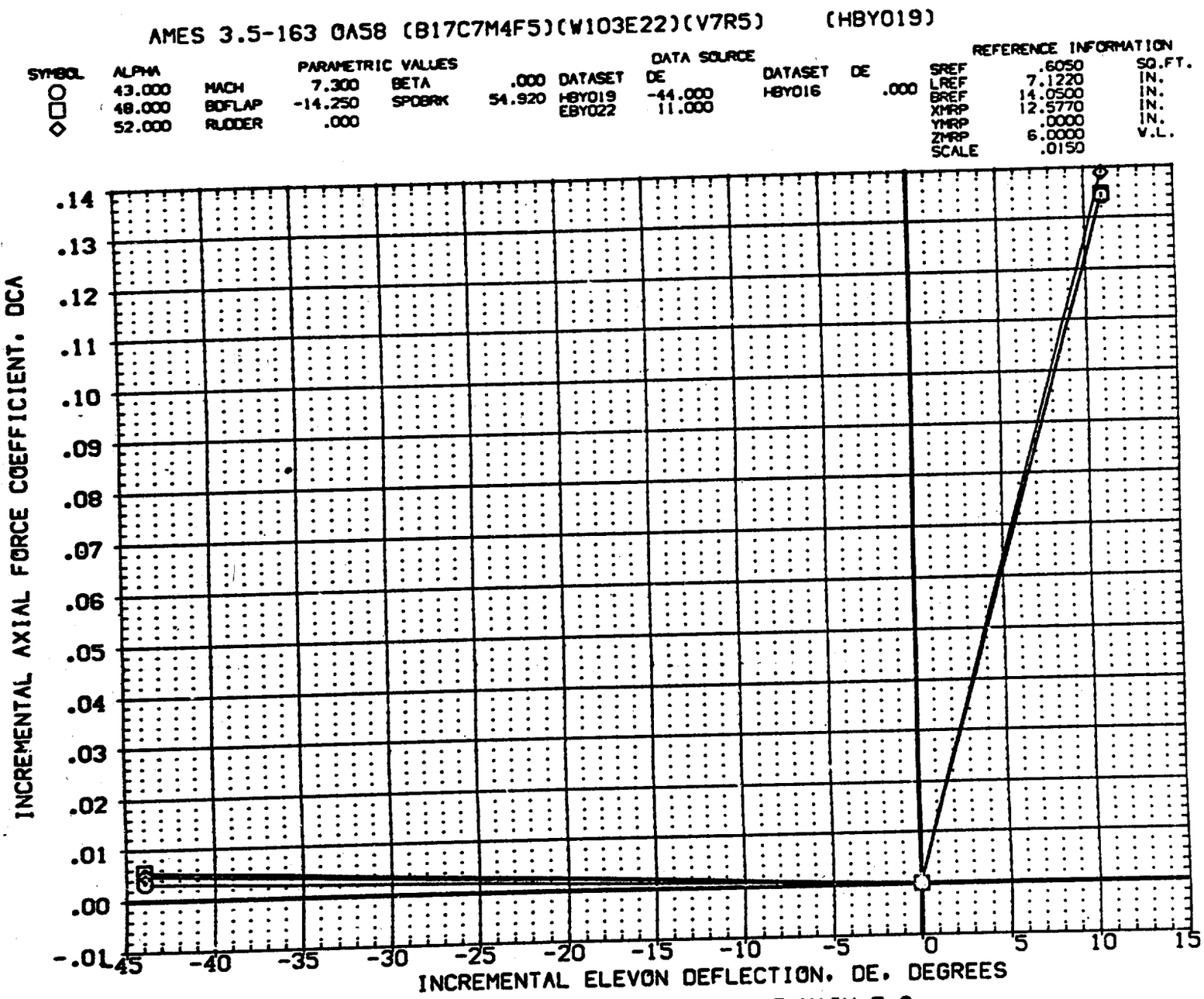


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

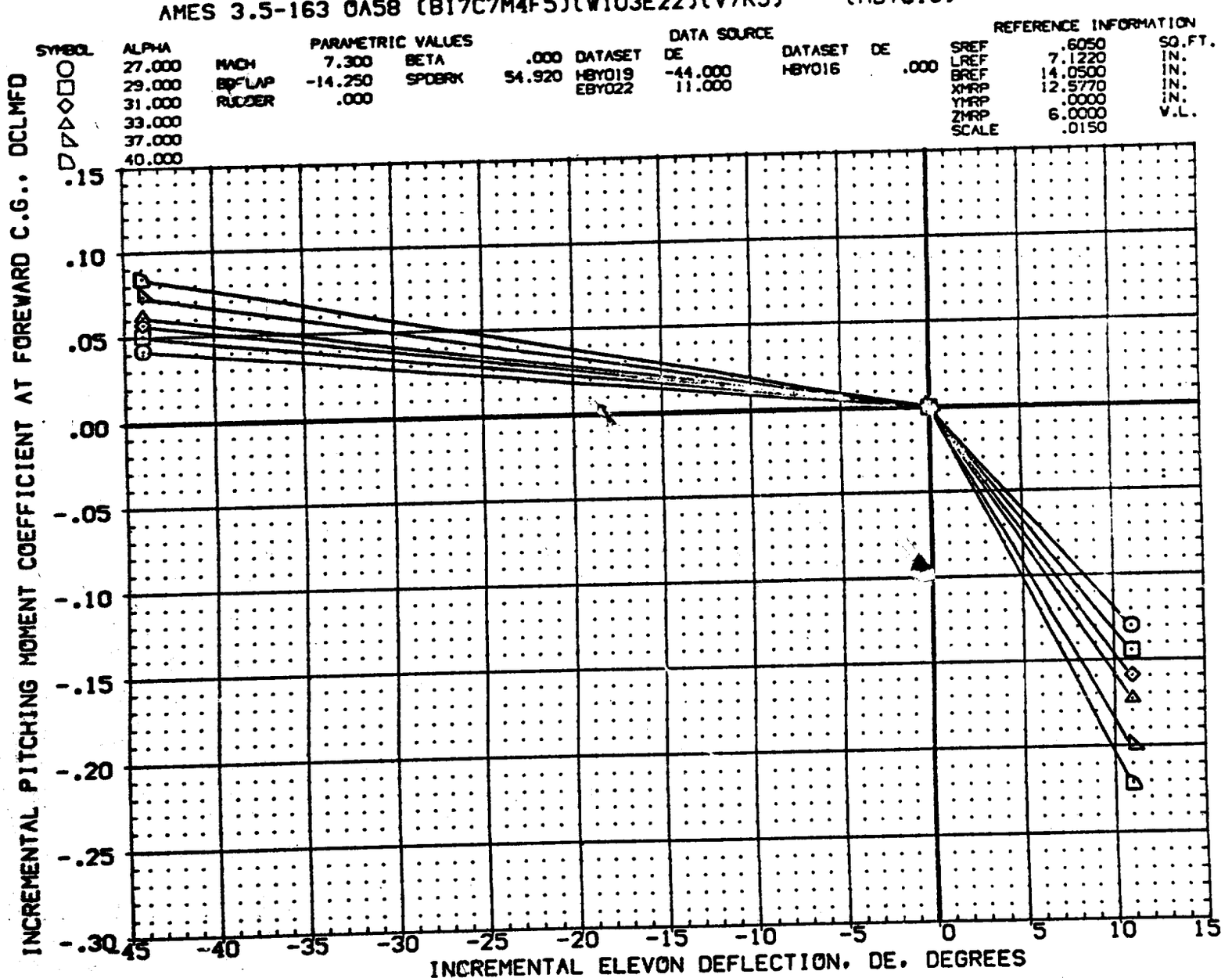


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

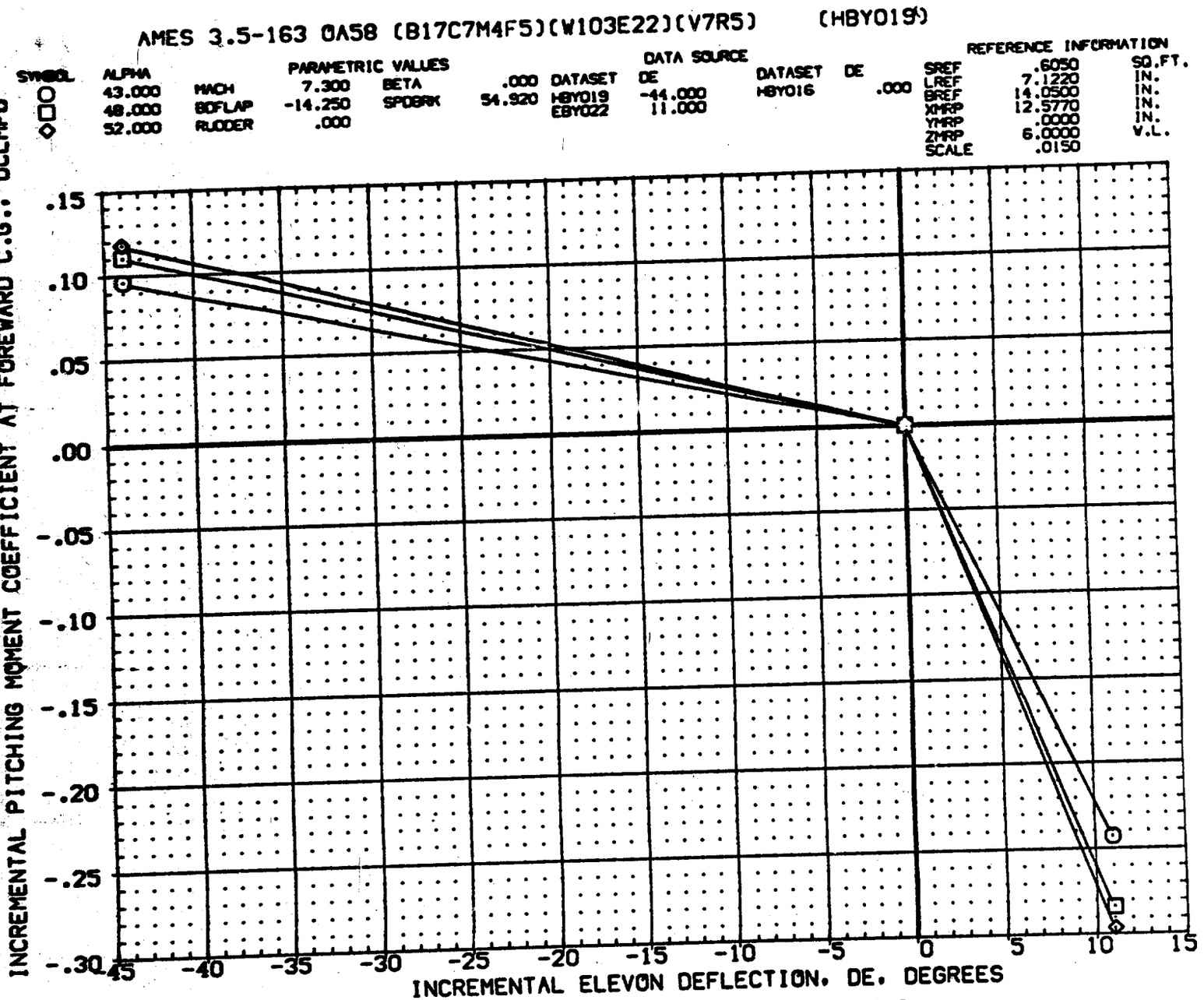


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

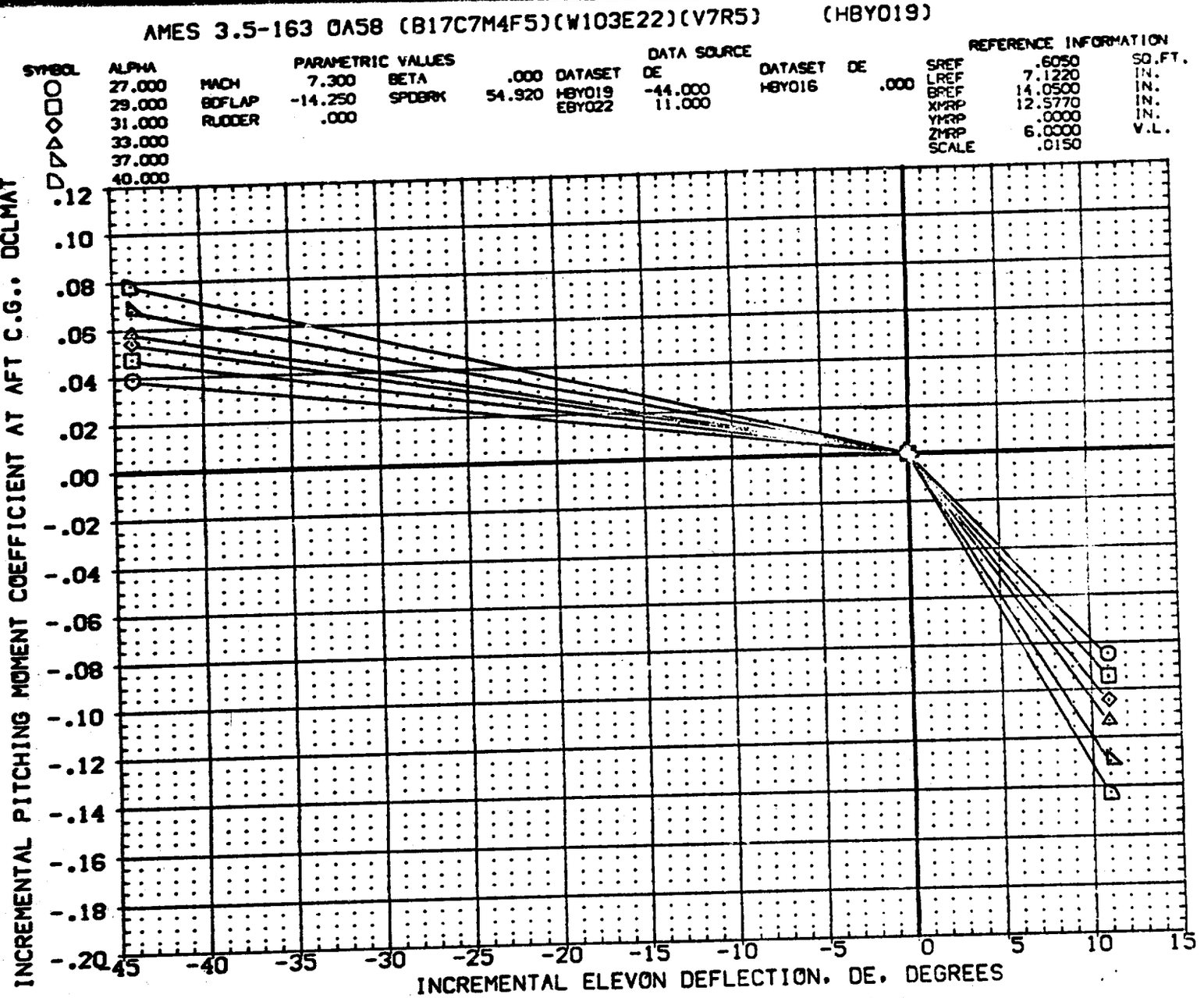


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

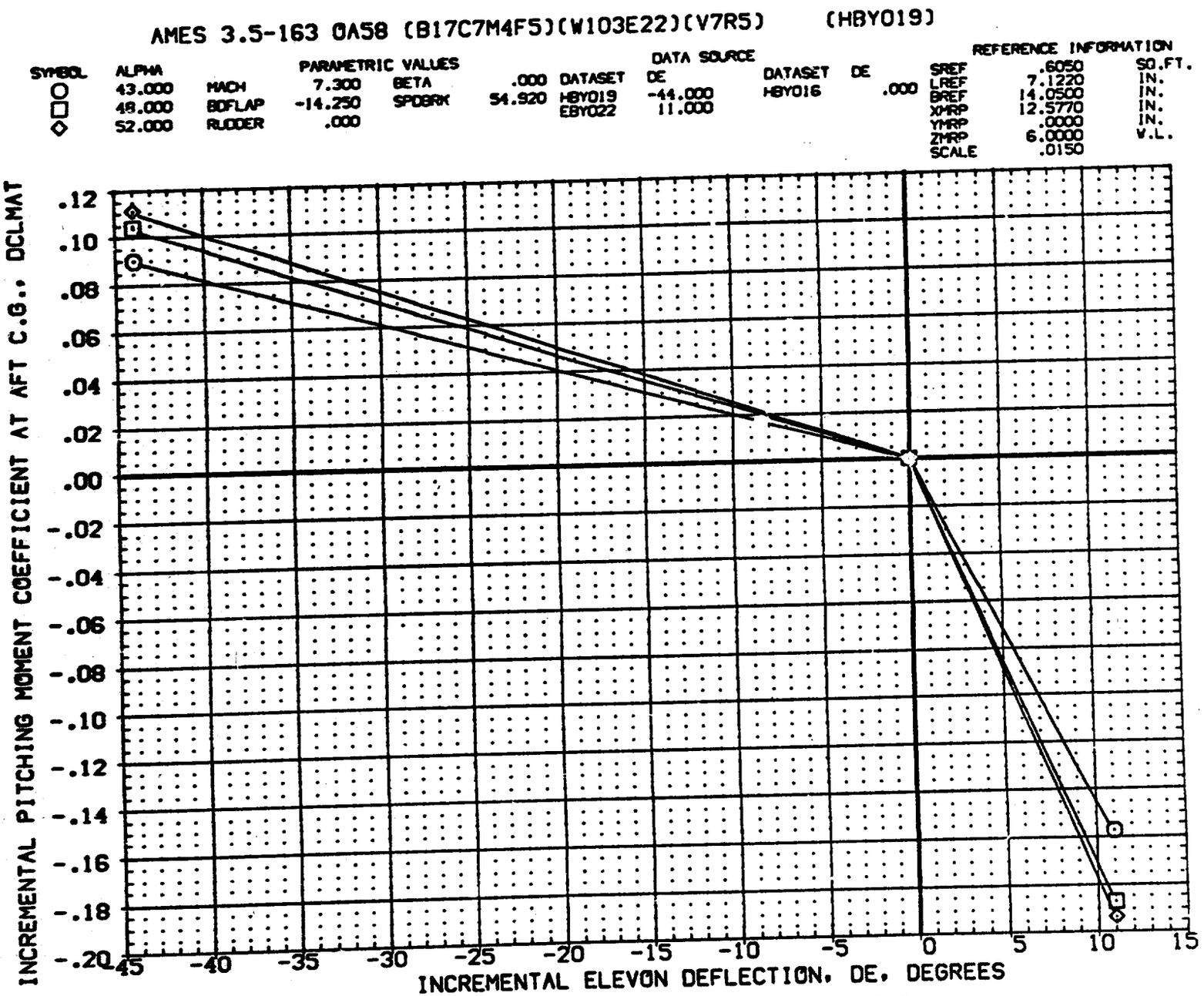


FIG. 10 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 7.3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY020)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

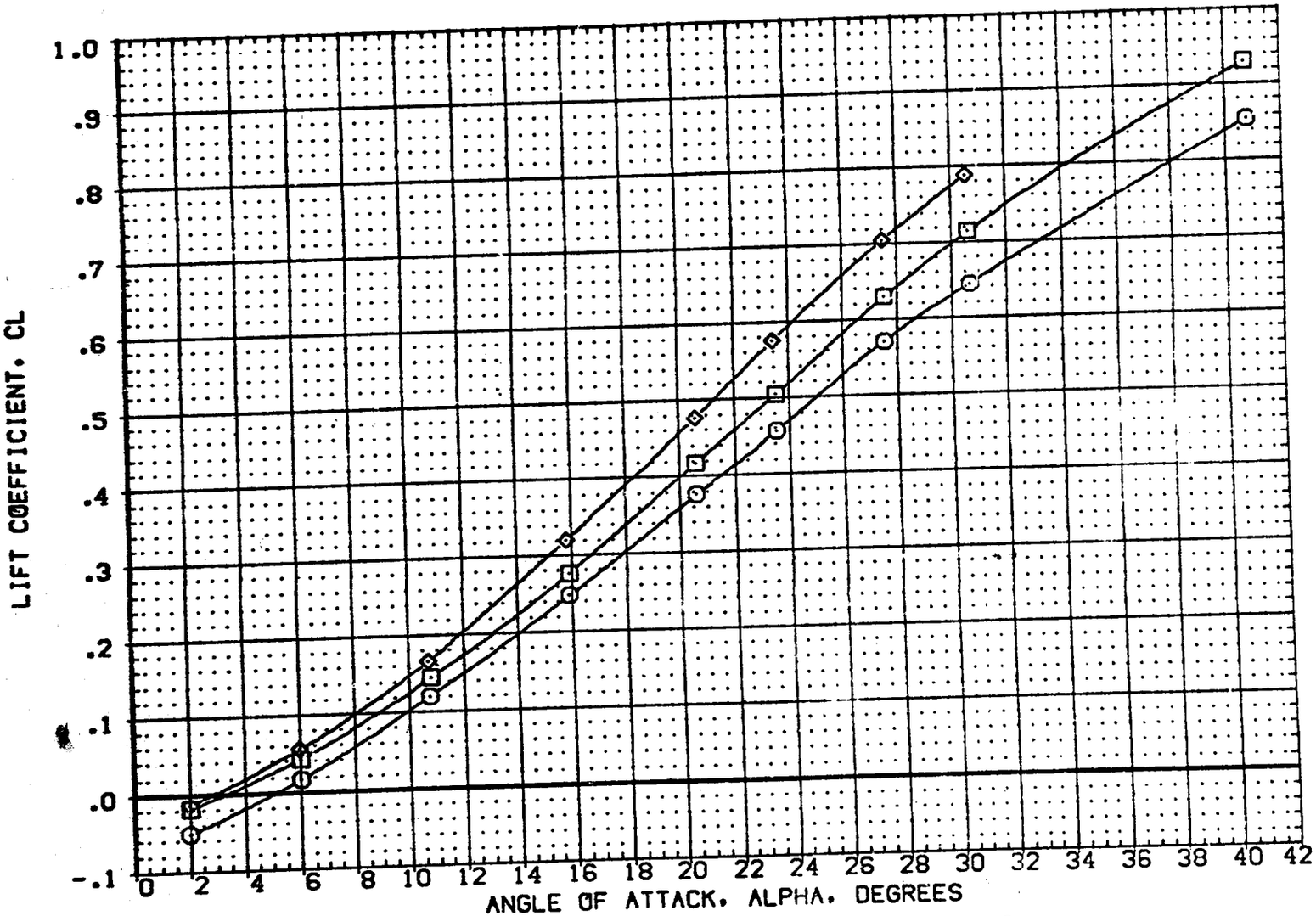


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY020) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

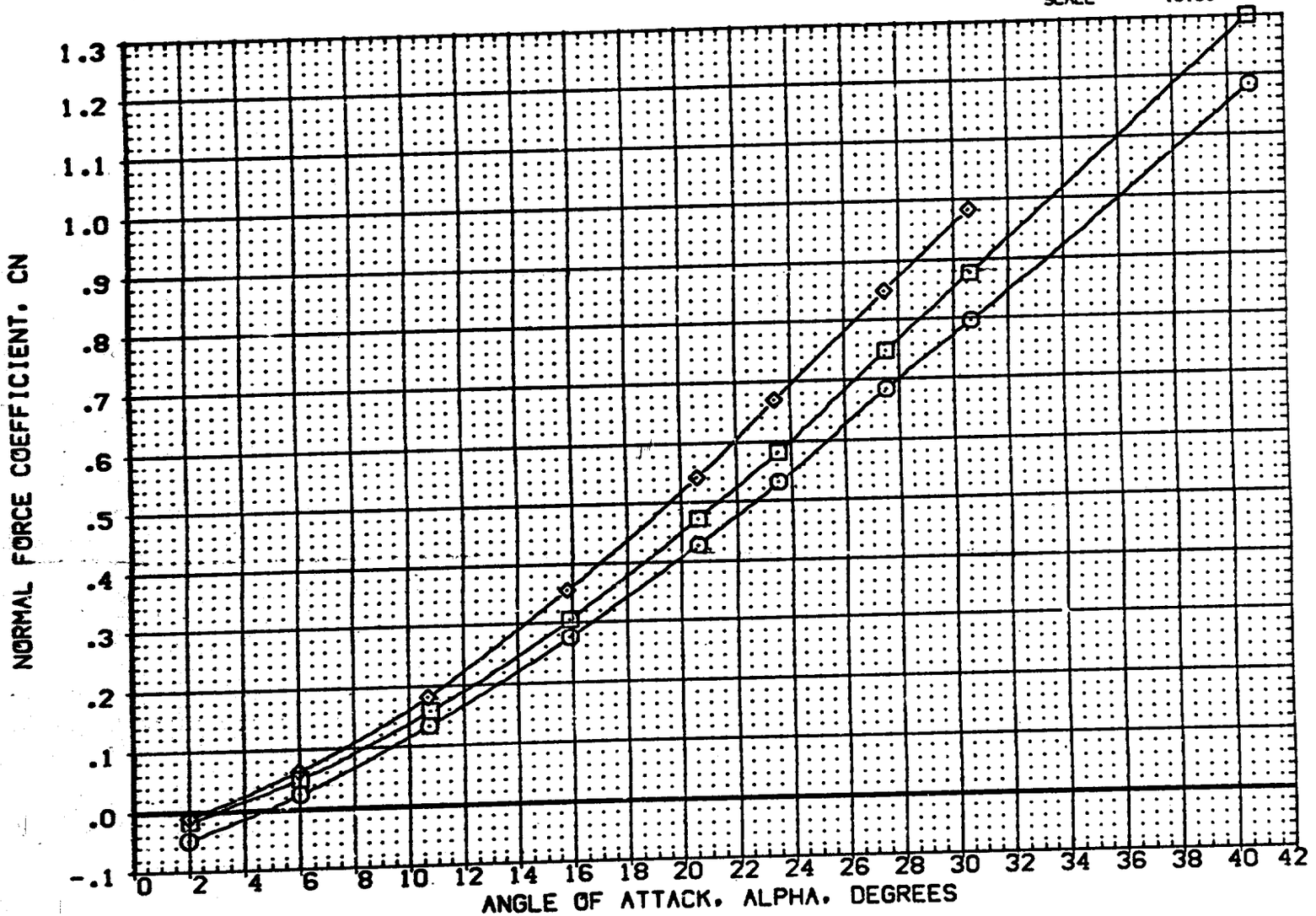


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY020) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

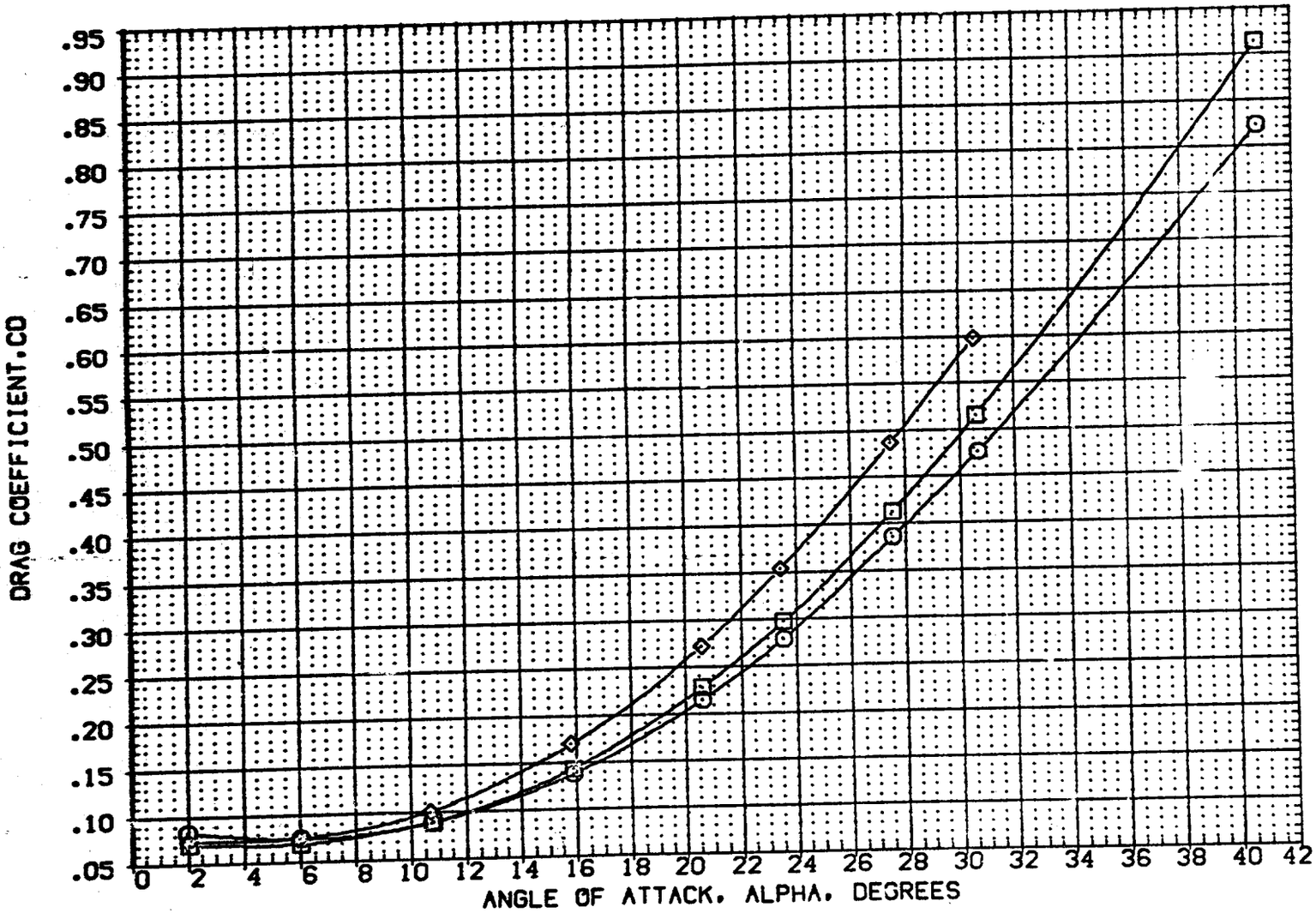


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY020)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

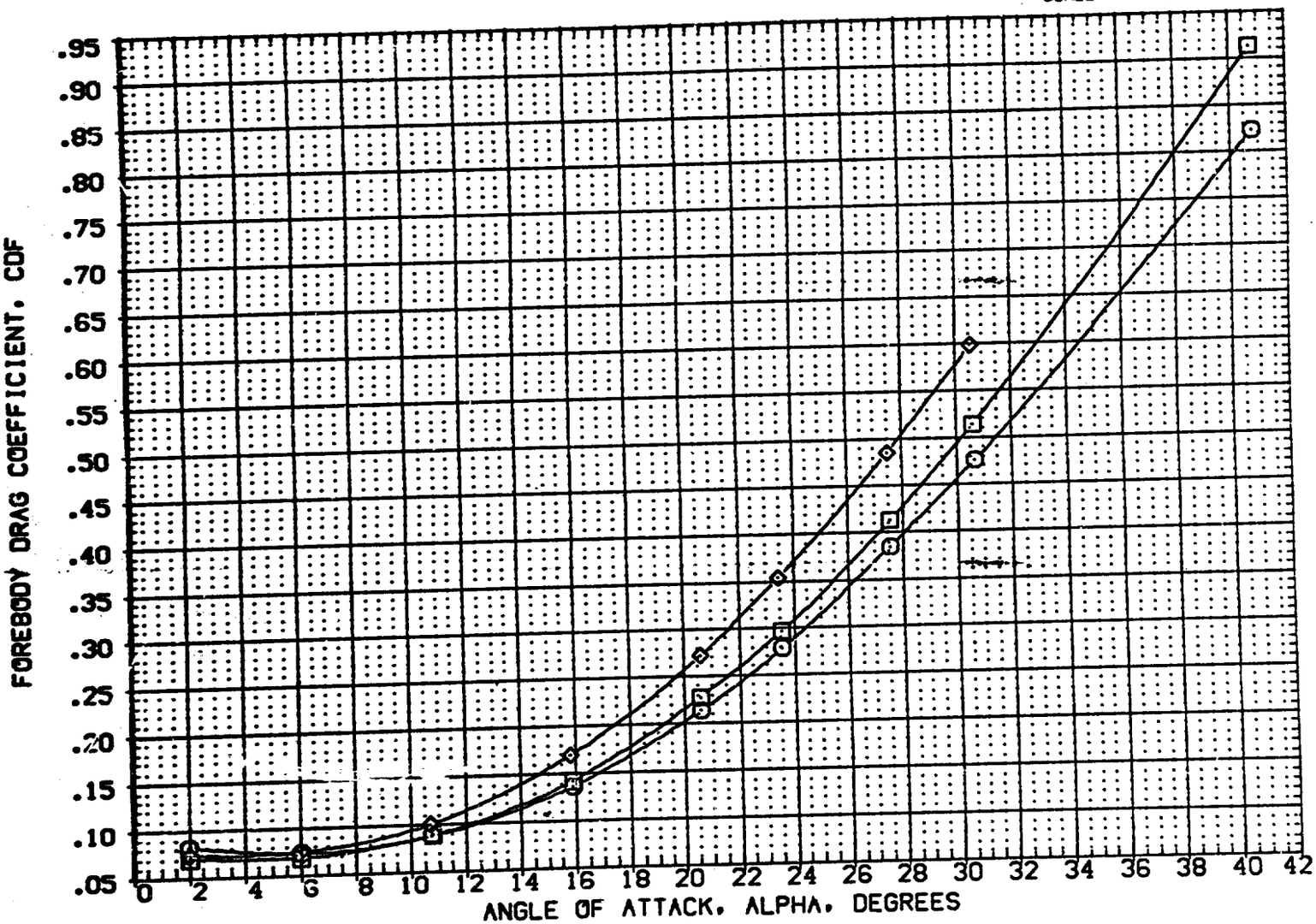


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY020)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

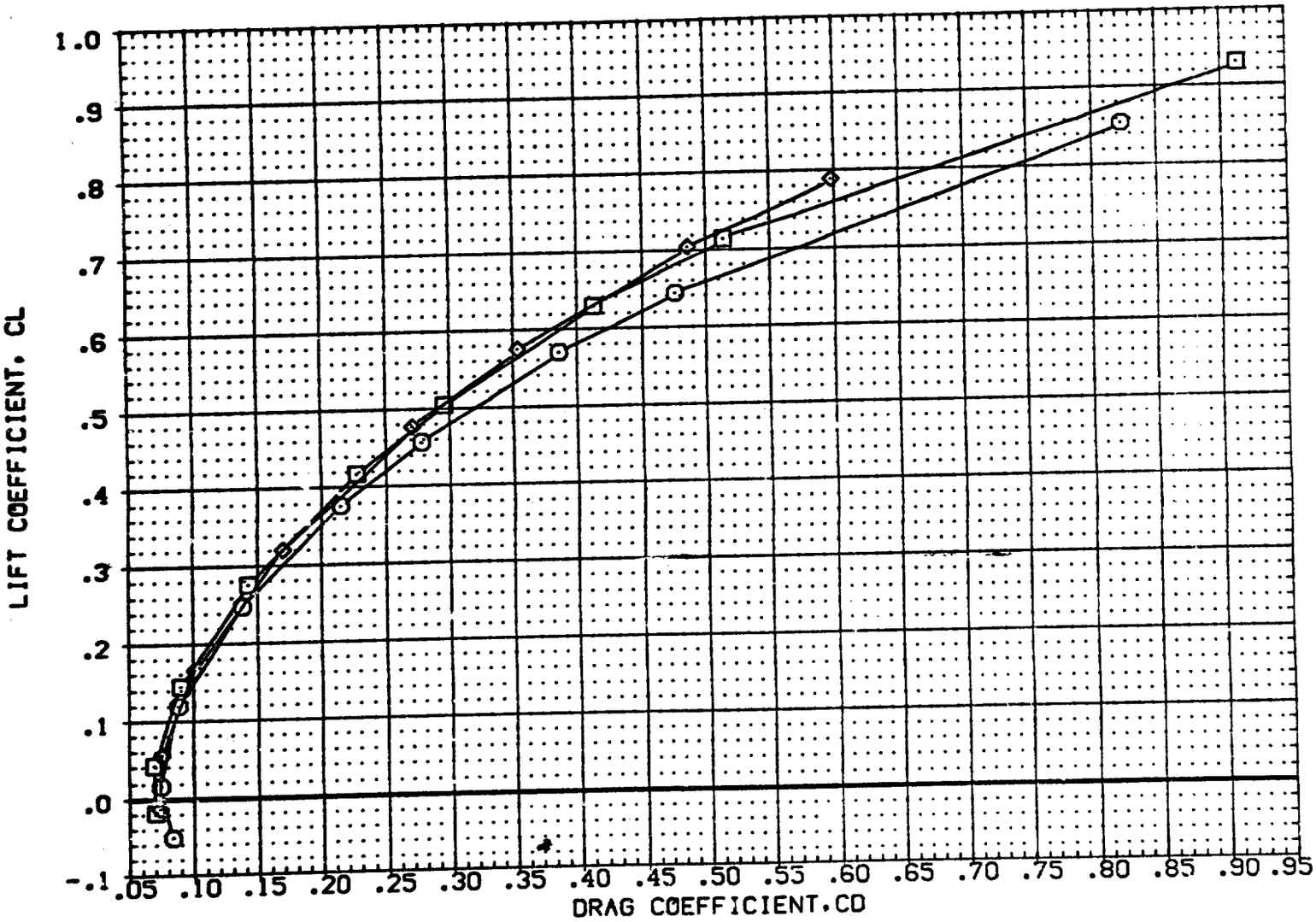


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY020)	□	AMES 3.5-163 BASB (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	◇	AMES 3.5-163 BASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 BASB (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

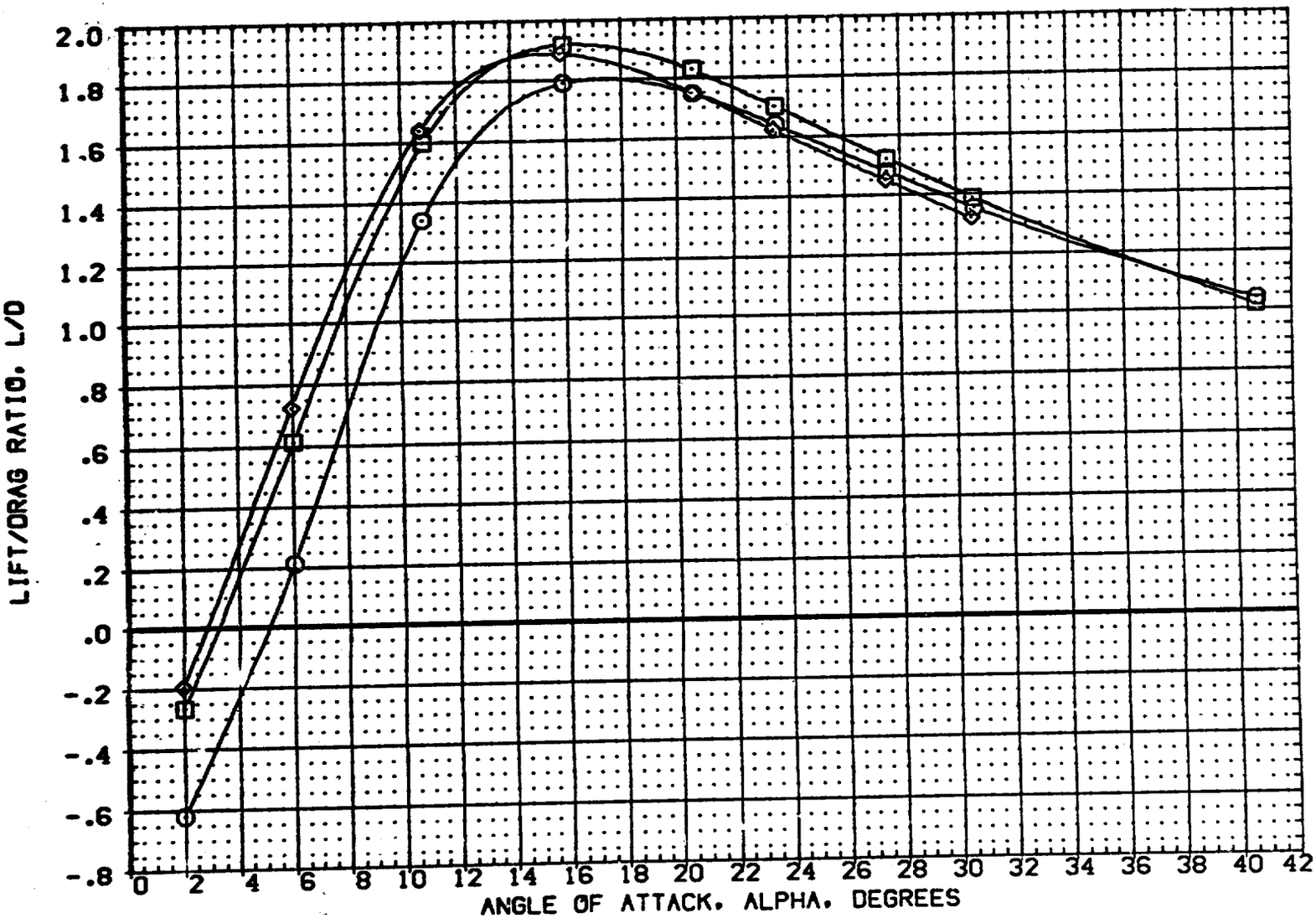


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY020)	○	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	□	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 OASE (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

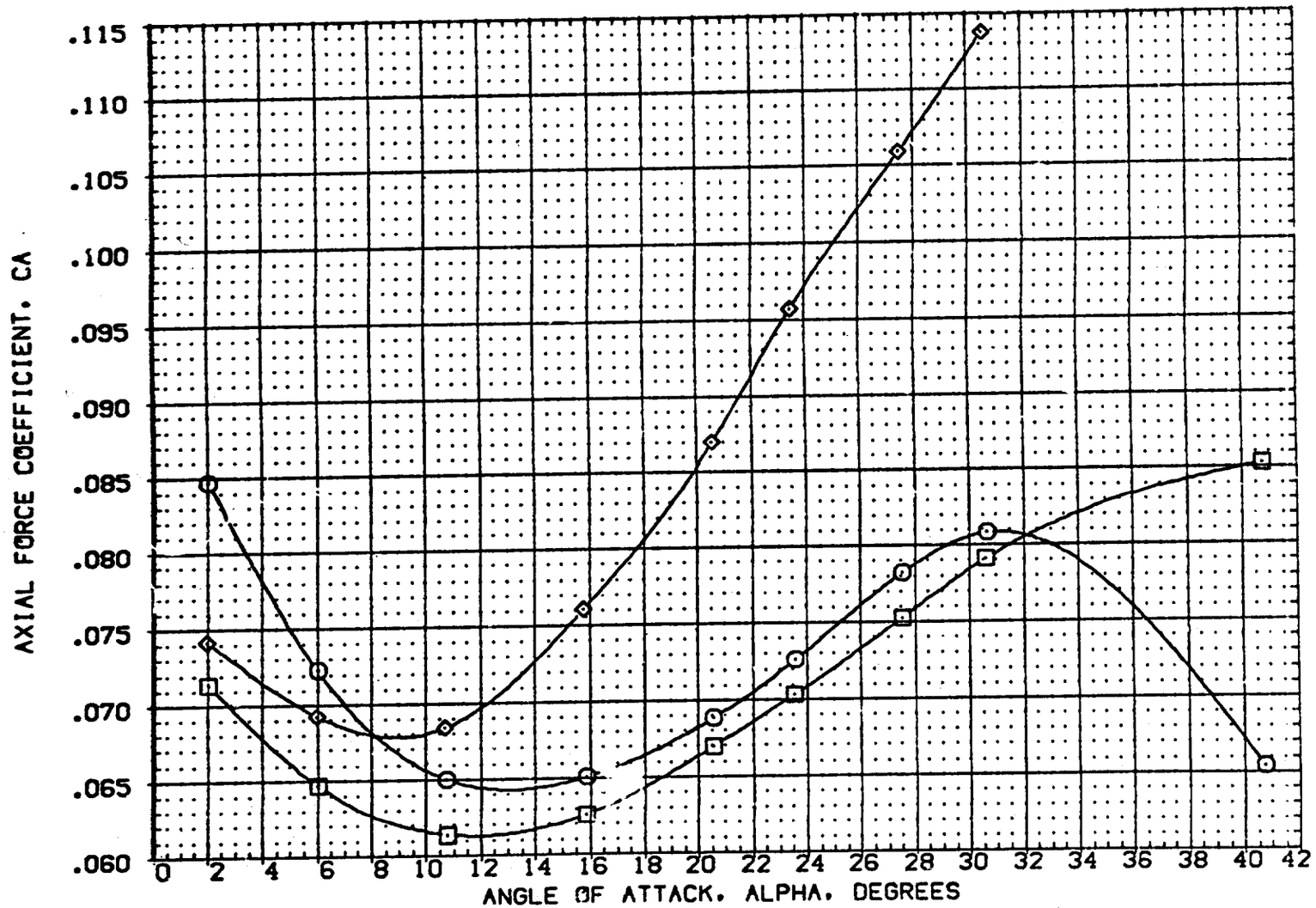


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY020) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

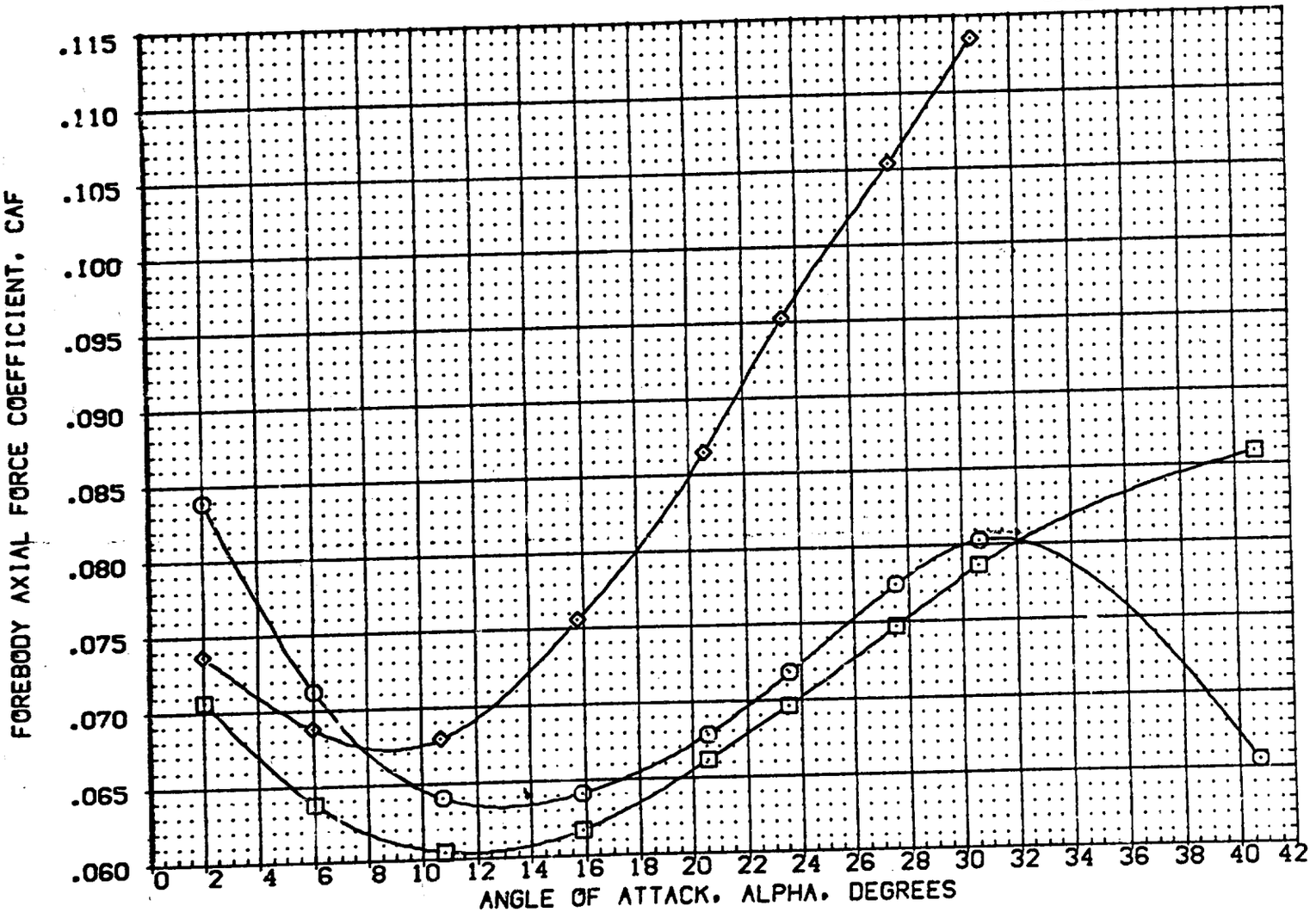


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8Y020) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(B8Y017) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y023) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

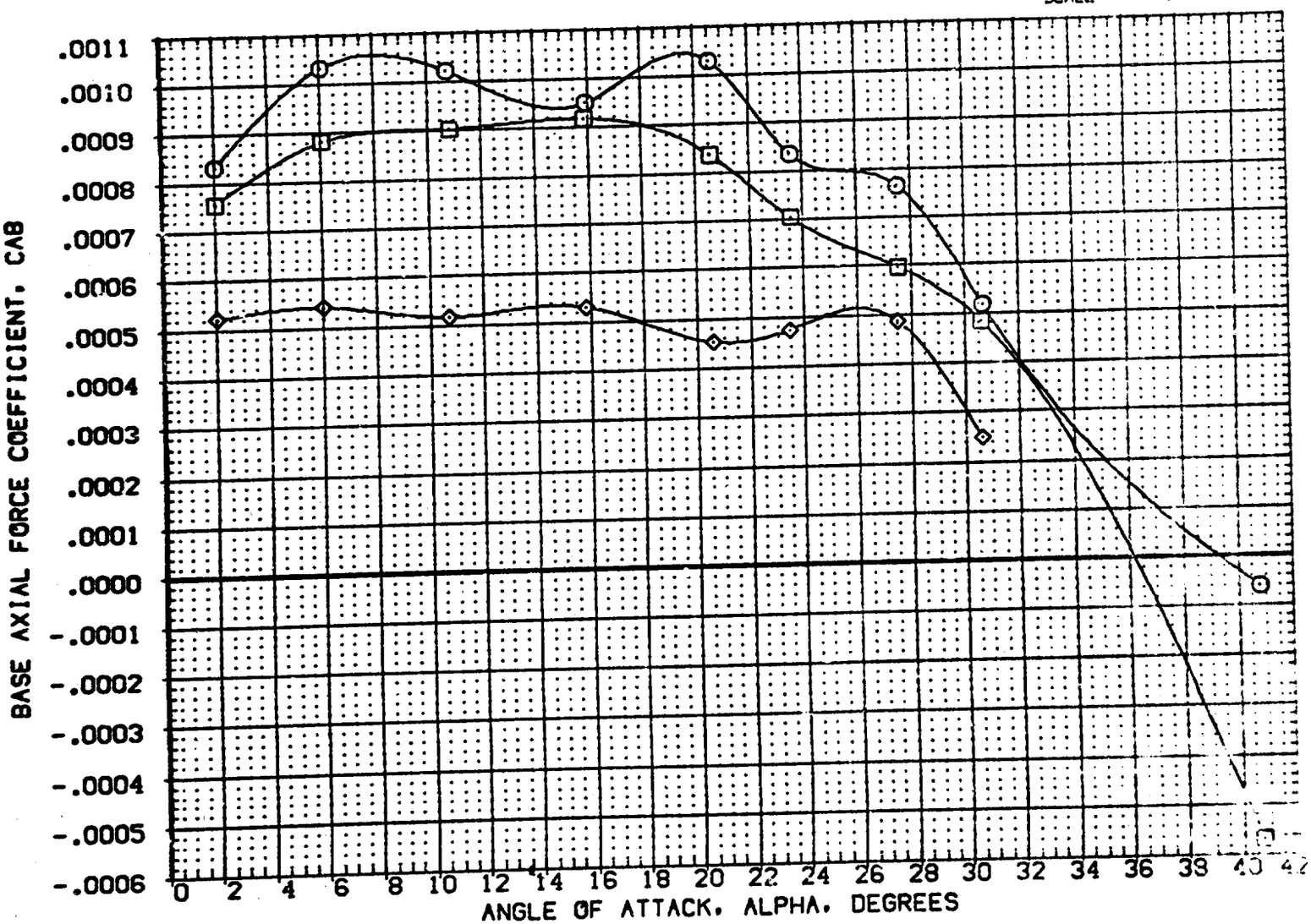


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY020)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

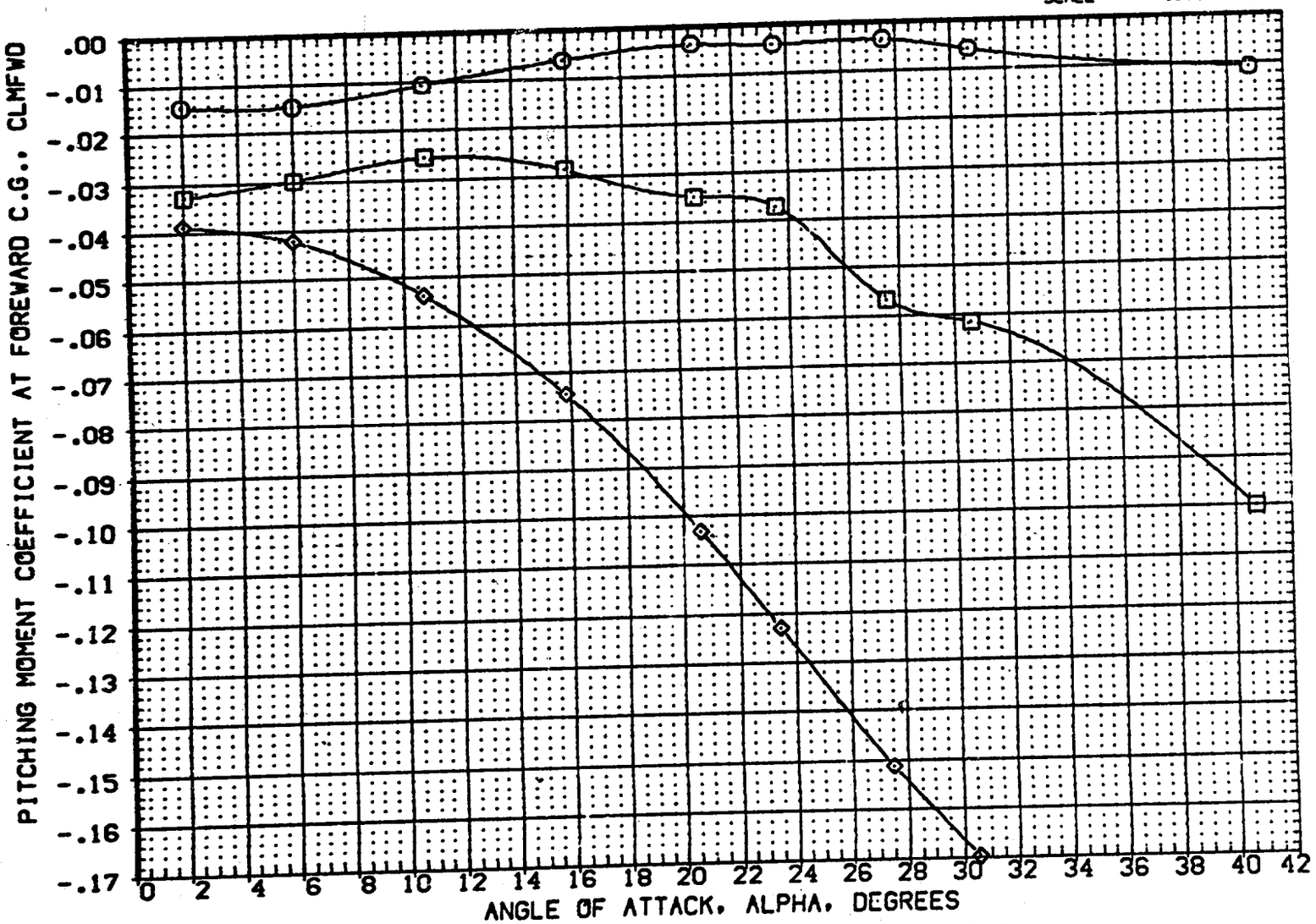


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY020)	○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

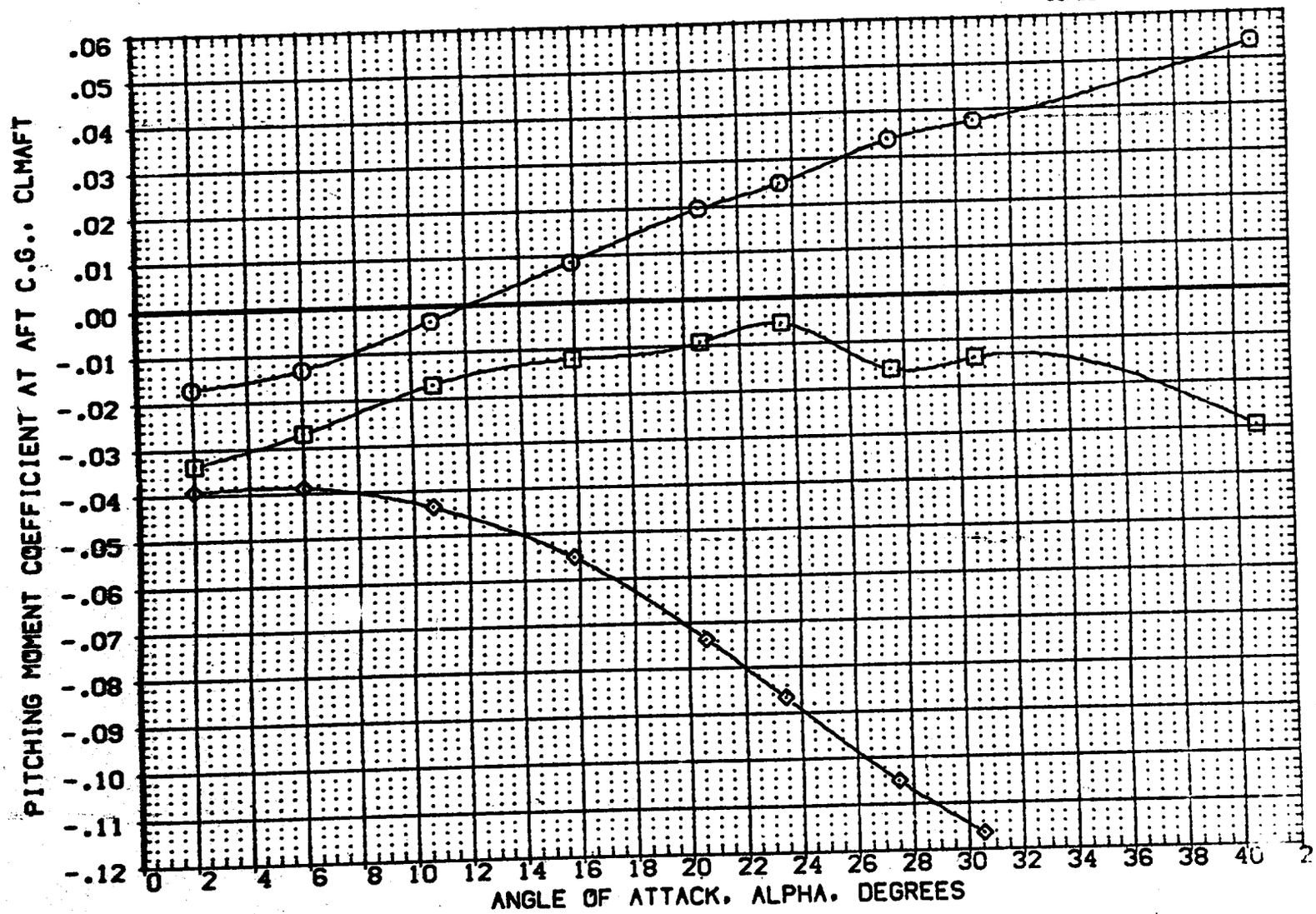


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY020) ○	AMES 3.5-163 0A58 (B17C7H4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017) □	AMES 3.5-163 0A58 (B17C7H4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023) ◇	AMES 3.5-163 0A58 (B17C7H4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

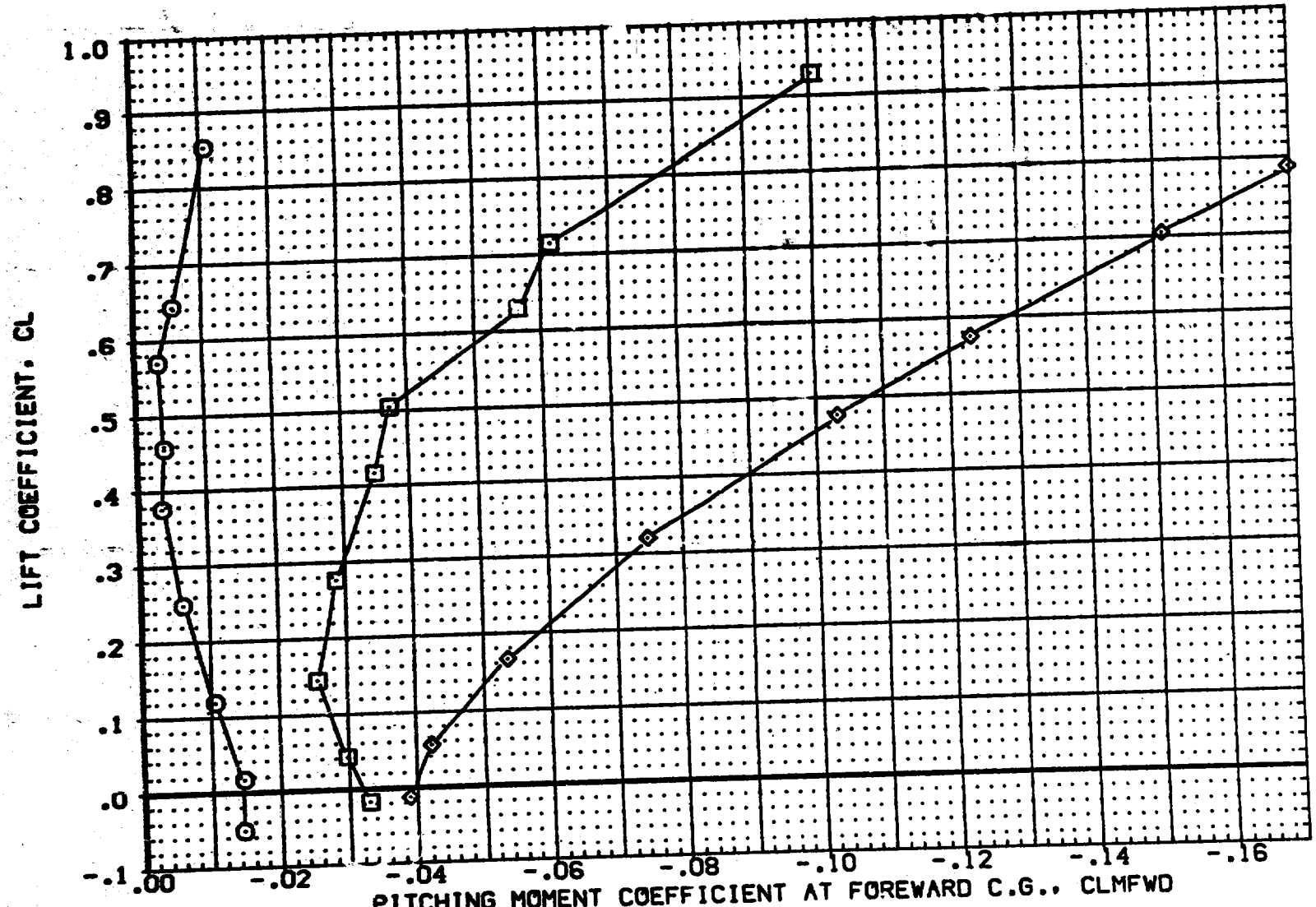


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY020) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(BBY017) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY023) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

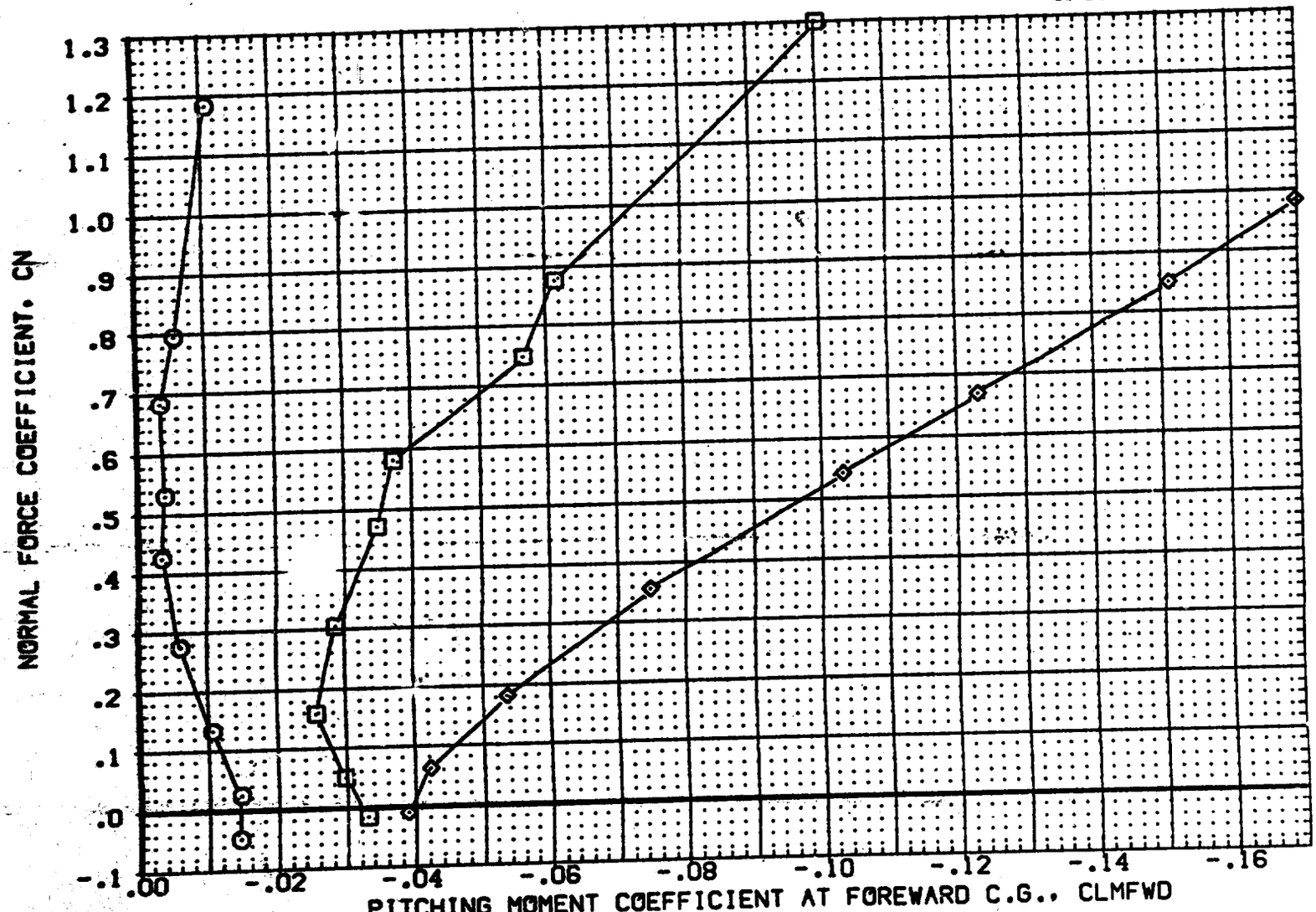


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

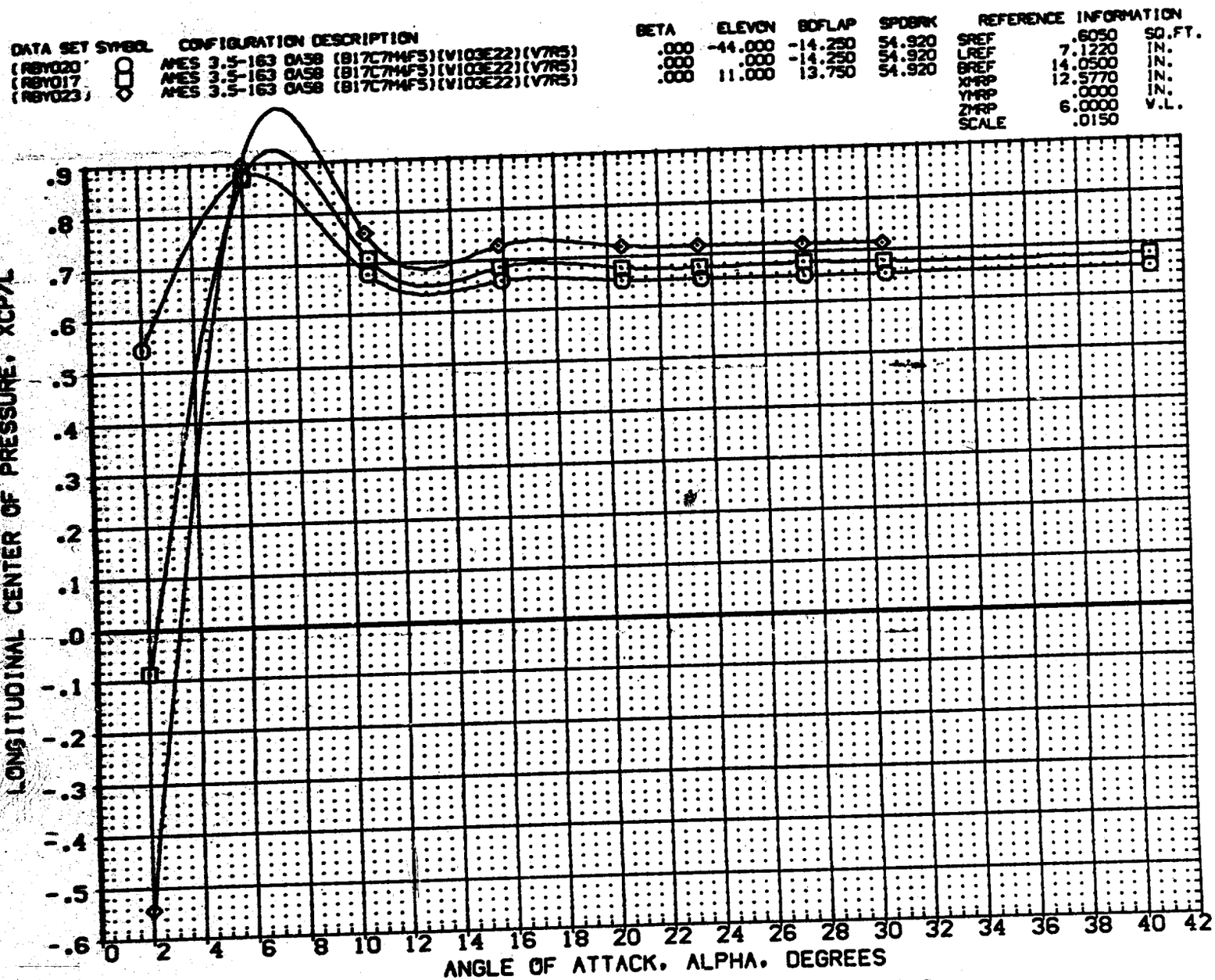


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY020)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

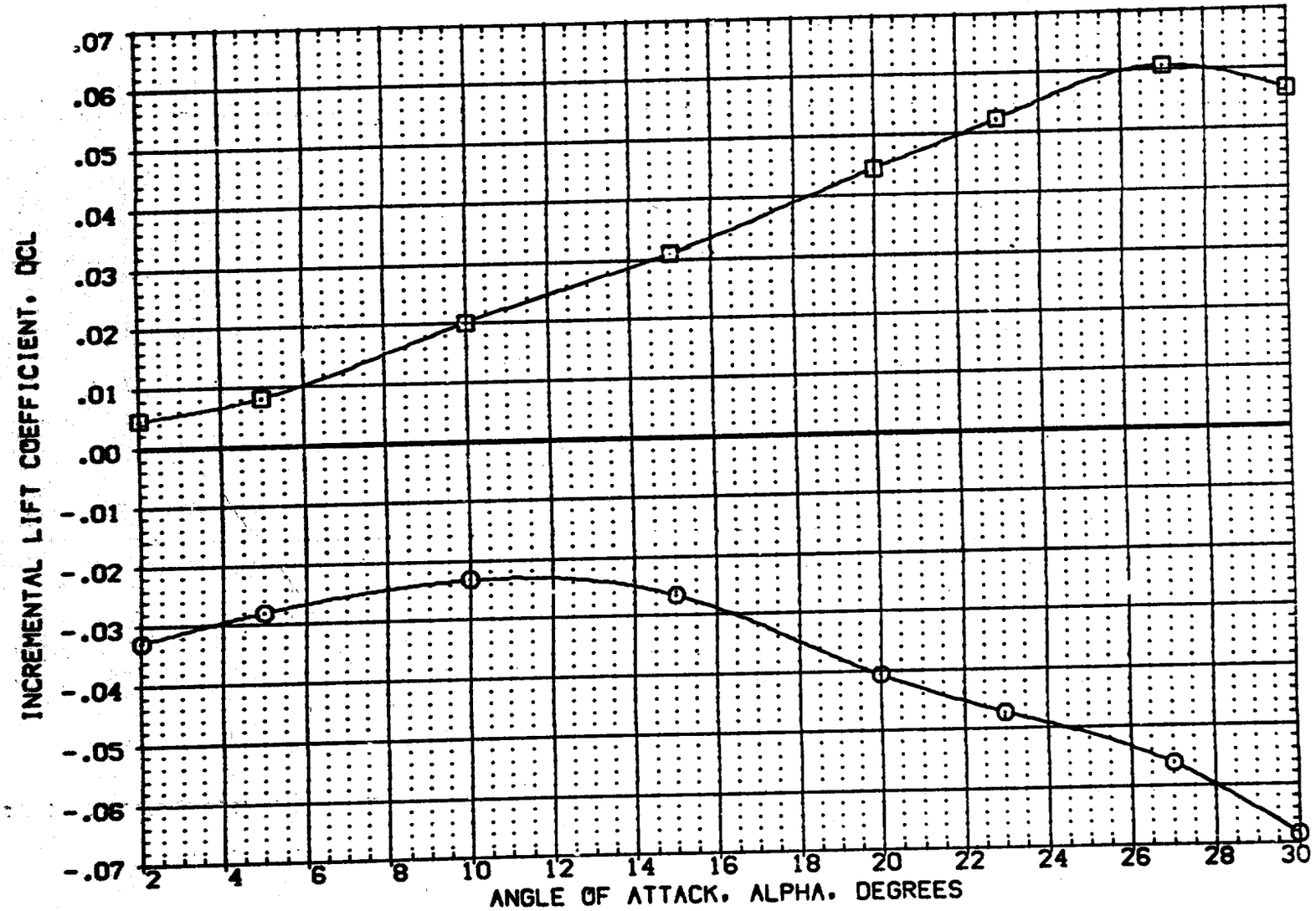


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY020)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

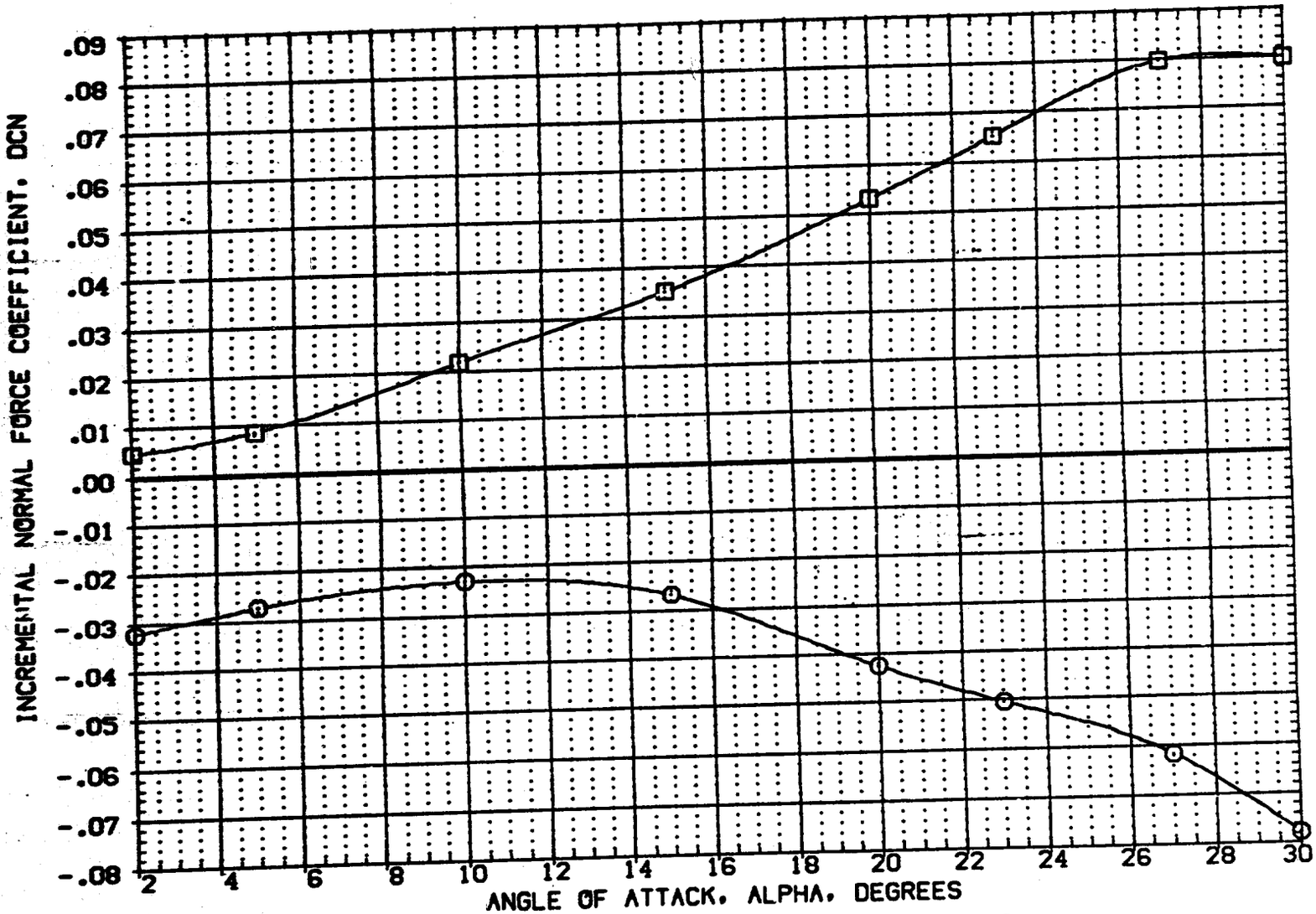


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPDBR(
(EBY020)	AMES 3.5-163 OASB (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 OASB (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

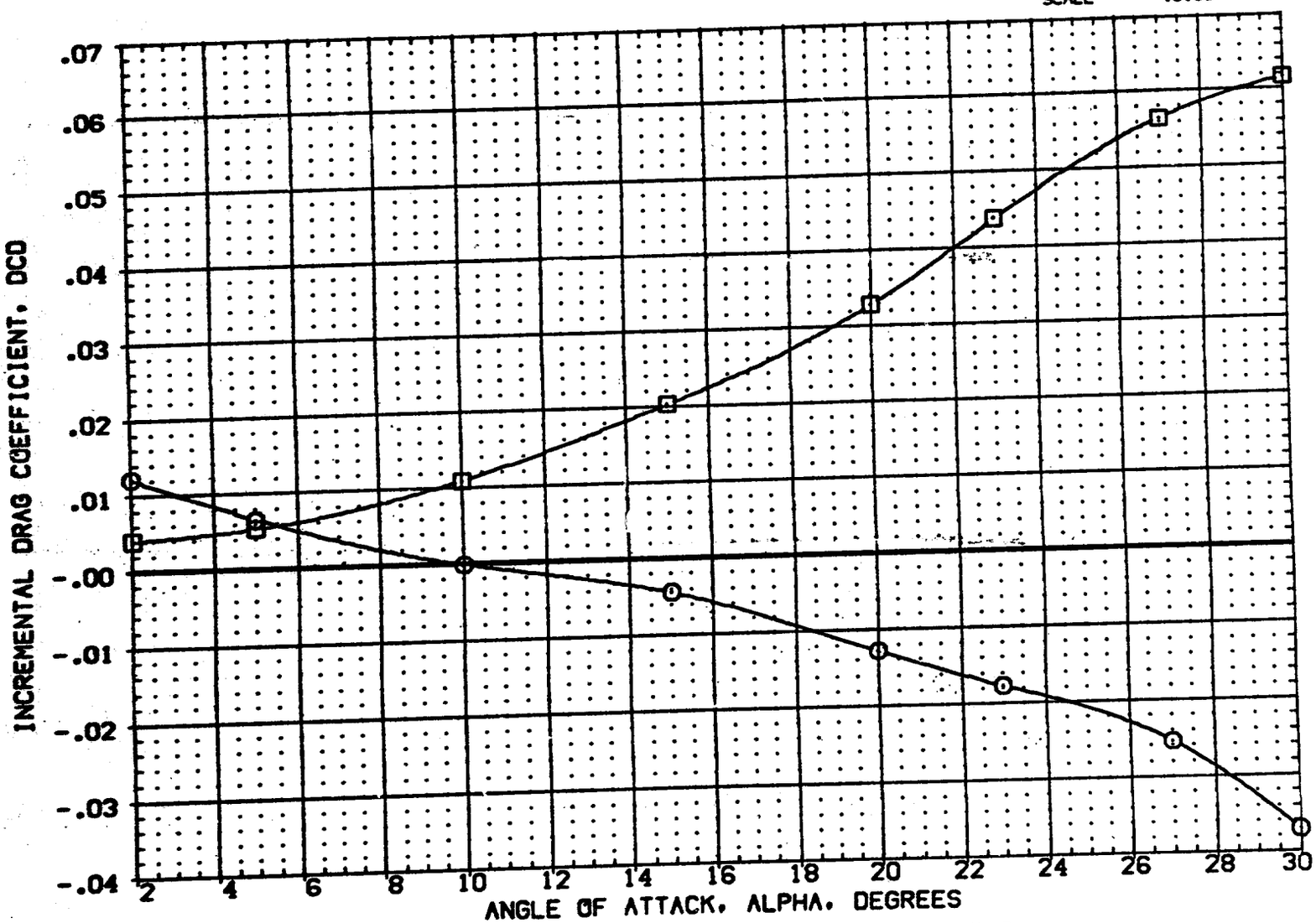


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY020) ○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023) □	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

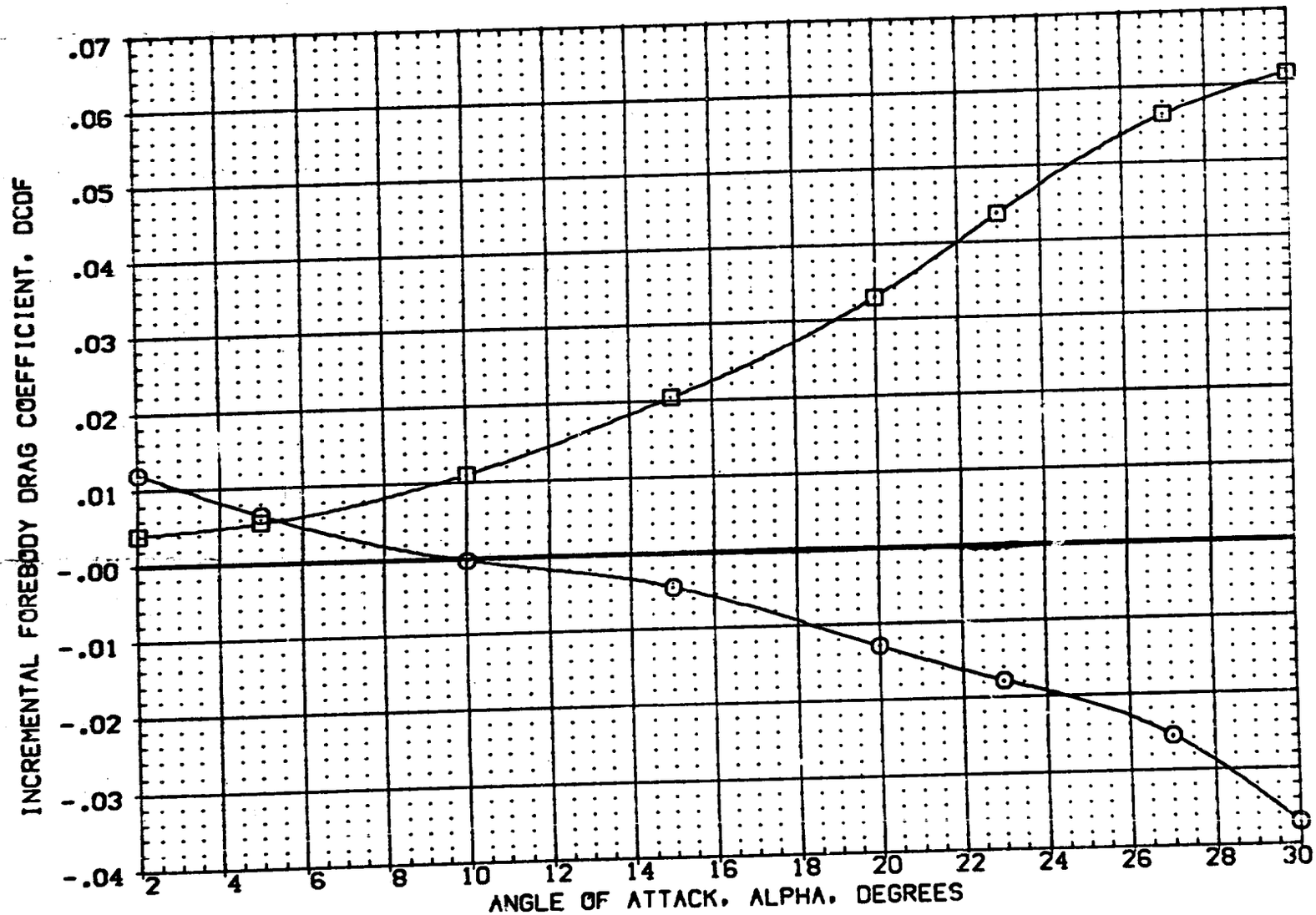


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BDFLAP	SPOBRK
(EBY020)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
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XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

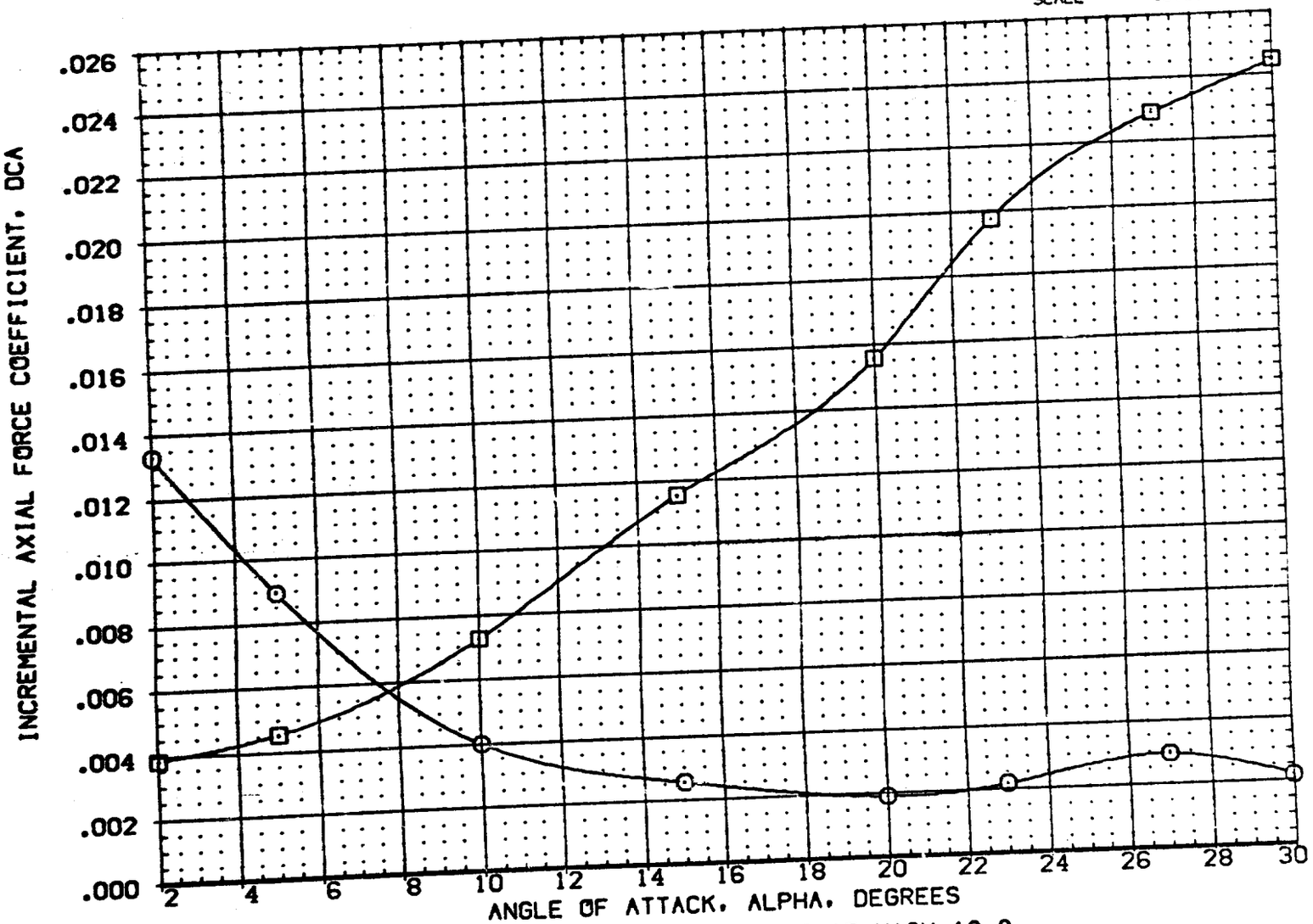


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY020)	AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
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XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
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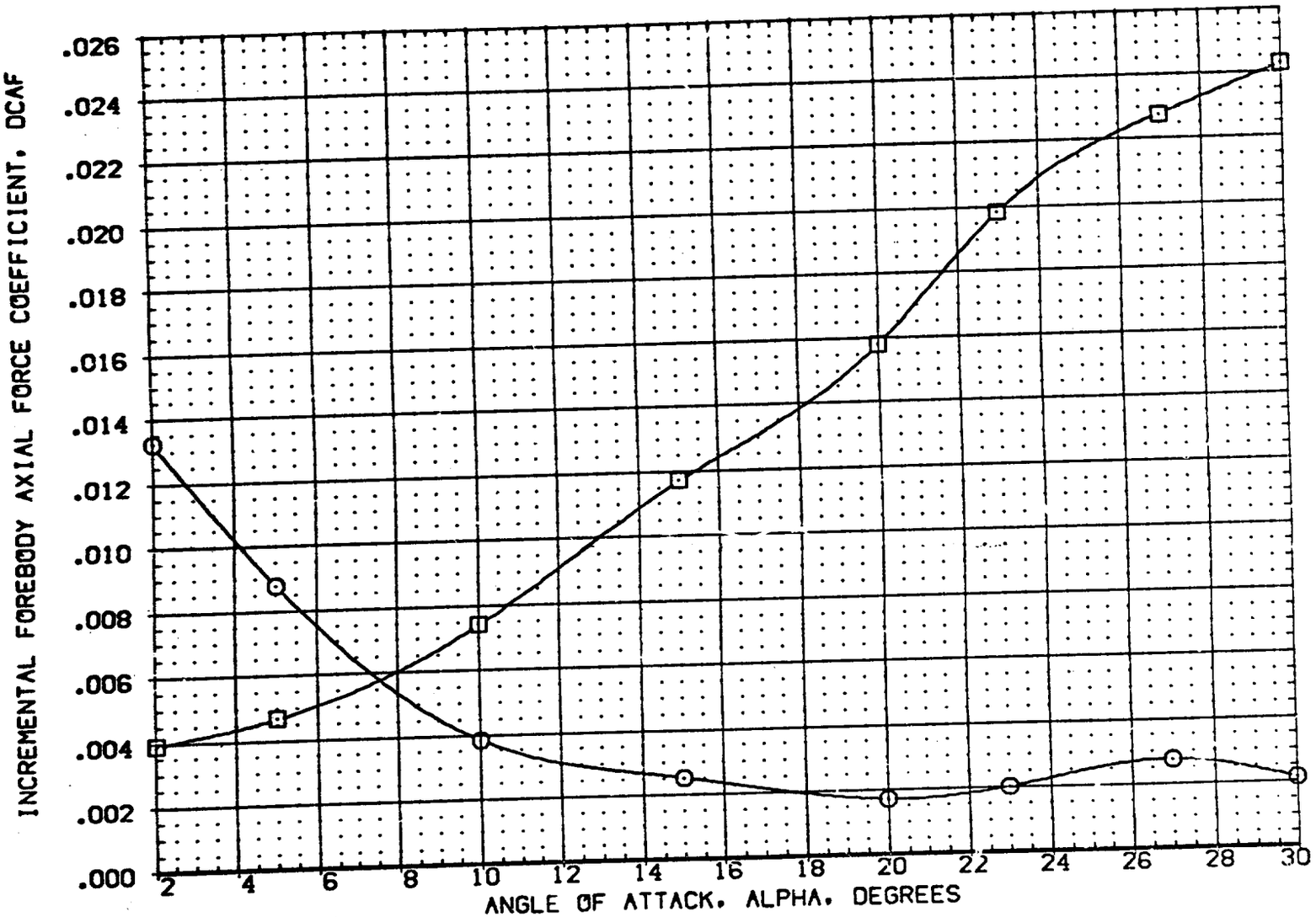


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPOBRK
(EBY020)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

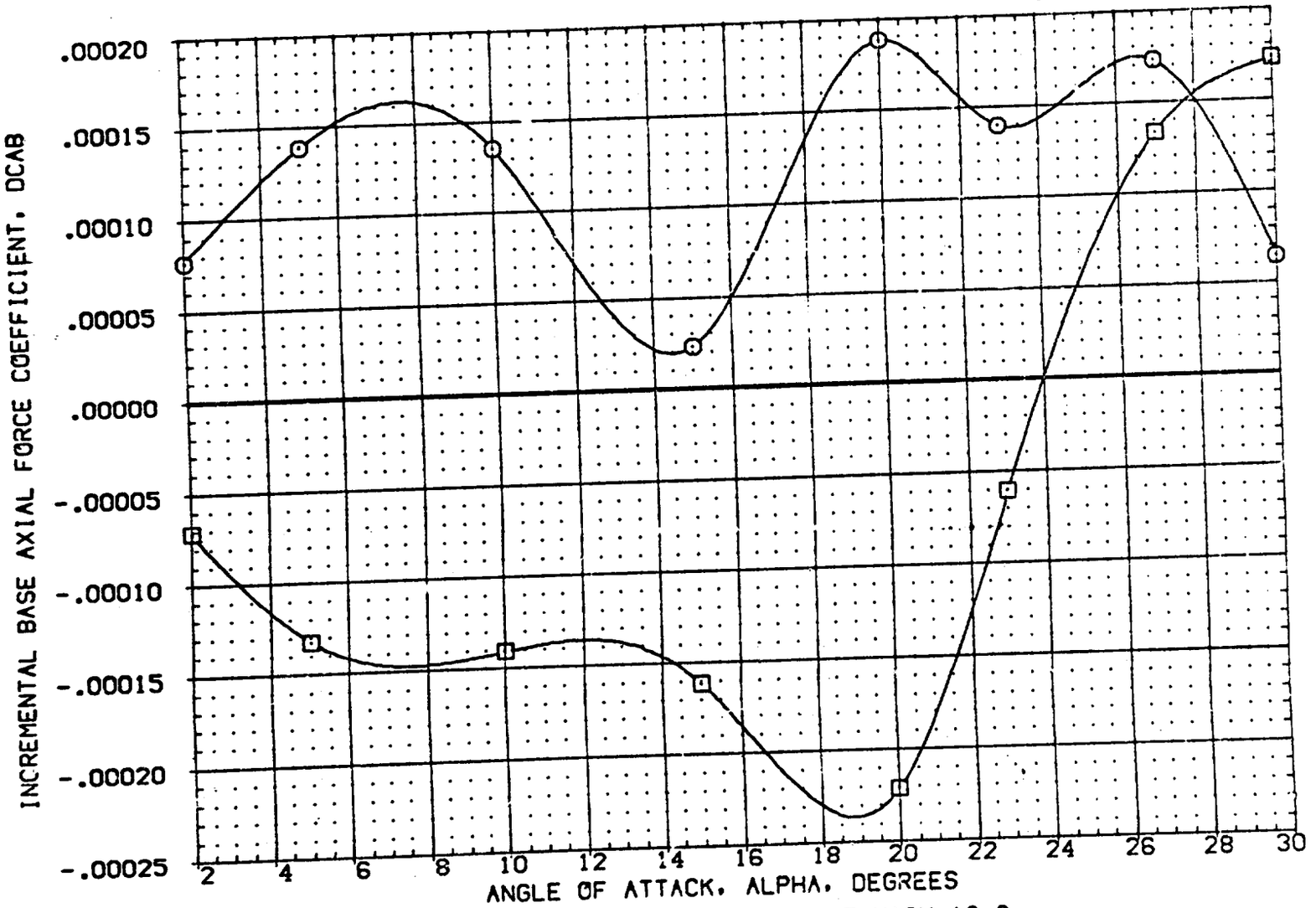


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

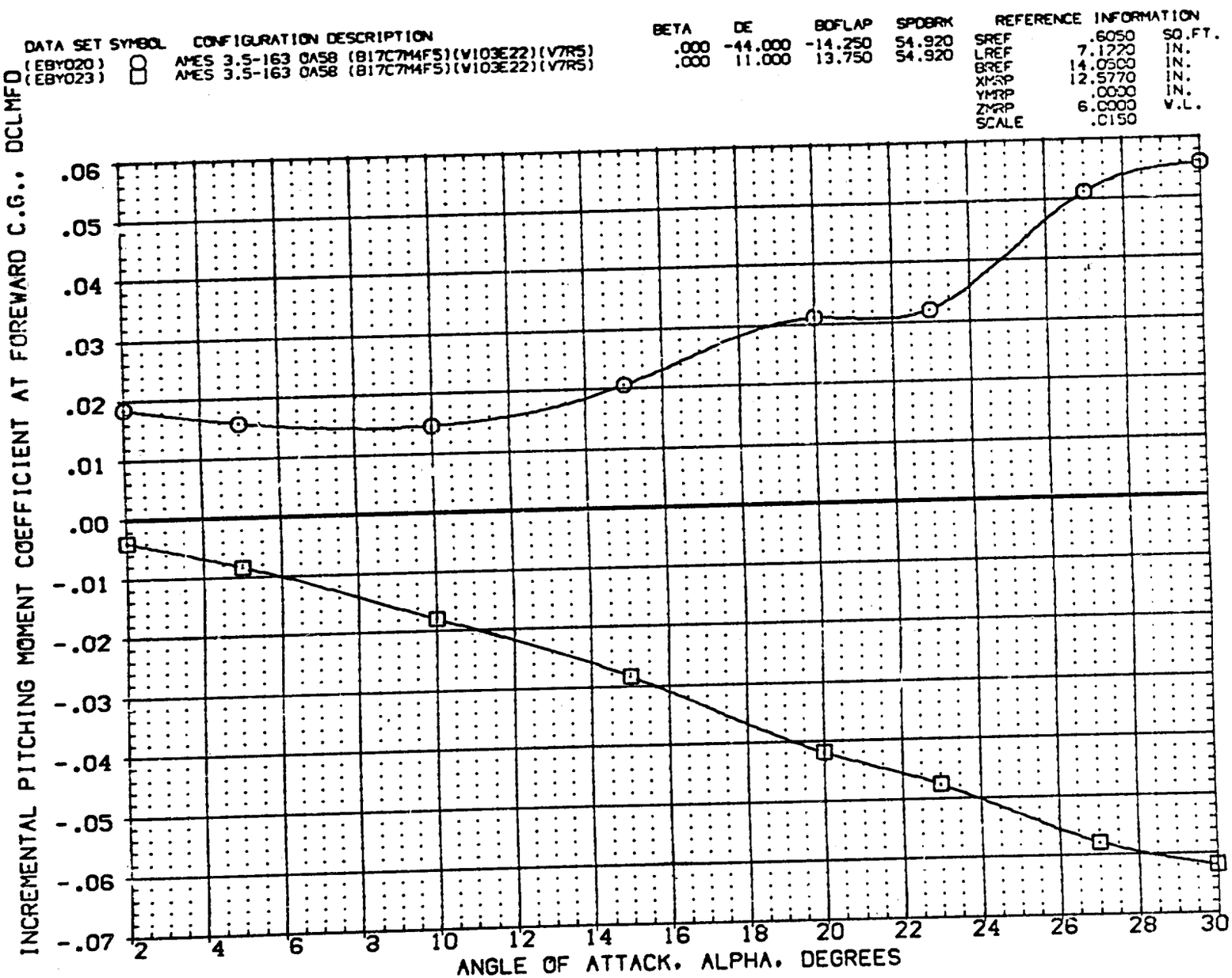


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	BOFLAP	SPDBRK
(EBY020)	AMES 3.5-163 CASB (B17C7M4F5)(W103E22)(V7R5)	.000	-44.000	-14.250	54.920
(EBY023)	AMES 3.5-163 CASB (B17C7M4F5)(W103E22)(V7R5)	.000	11.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

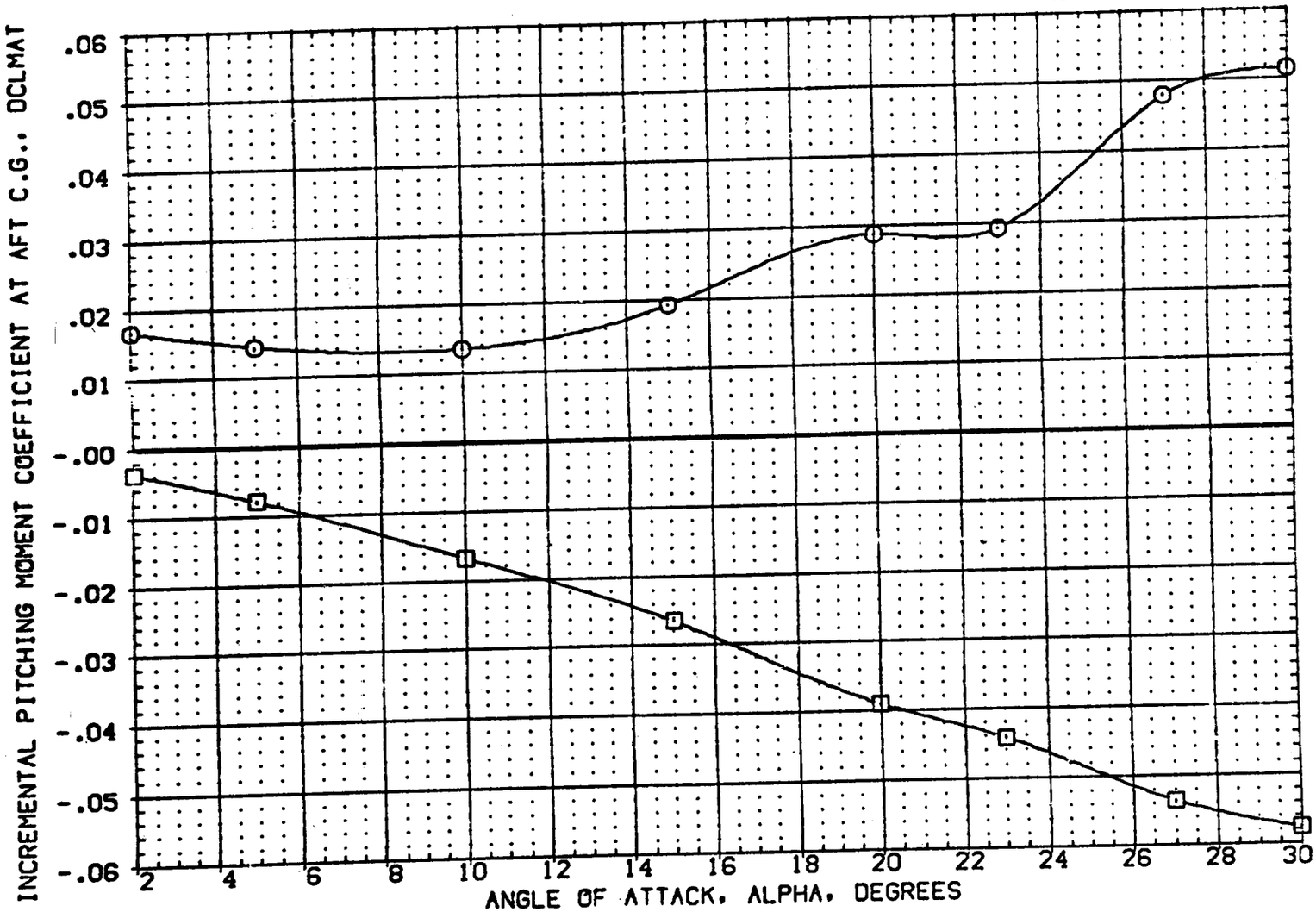


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

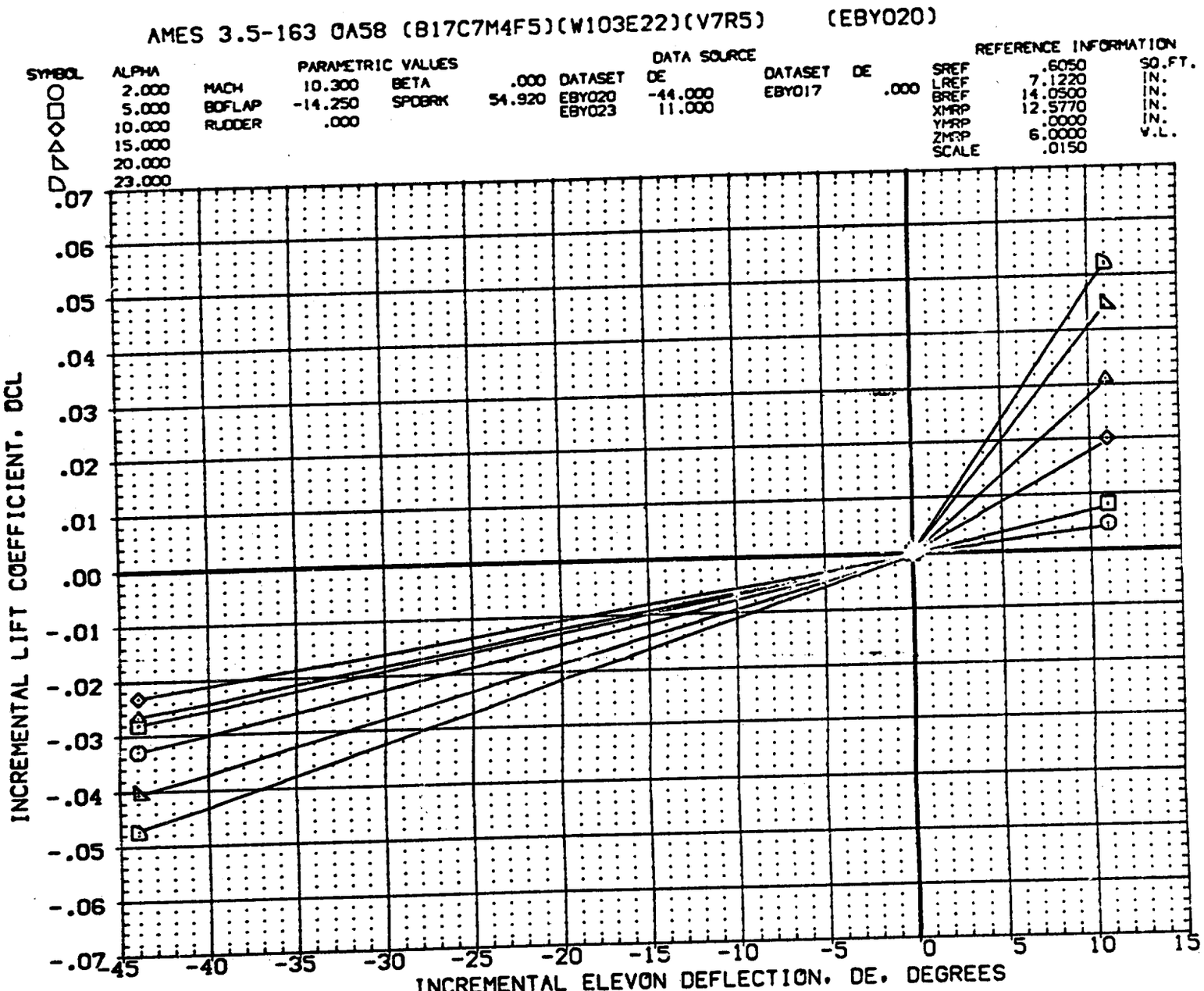


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY020)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	30.000	BDFLAP	-14.250	SPOBRK	54.920	EBY020	-44.000	EBY017	.000	LREF	7.1220	IN.
		RUDDER	.000			EBY023	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

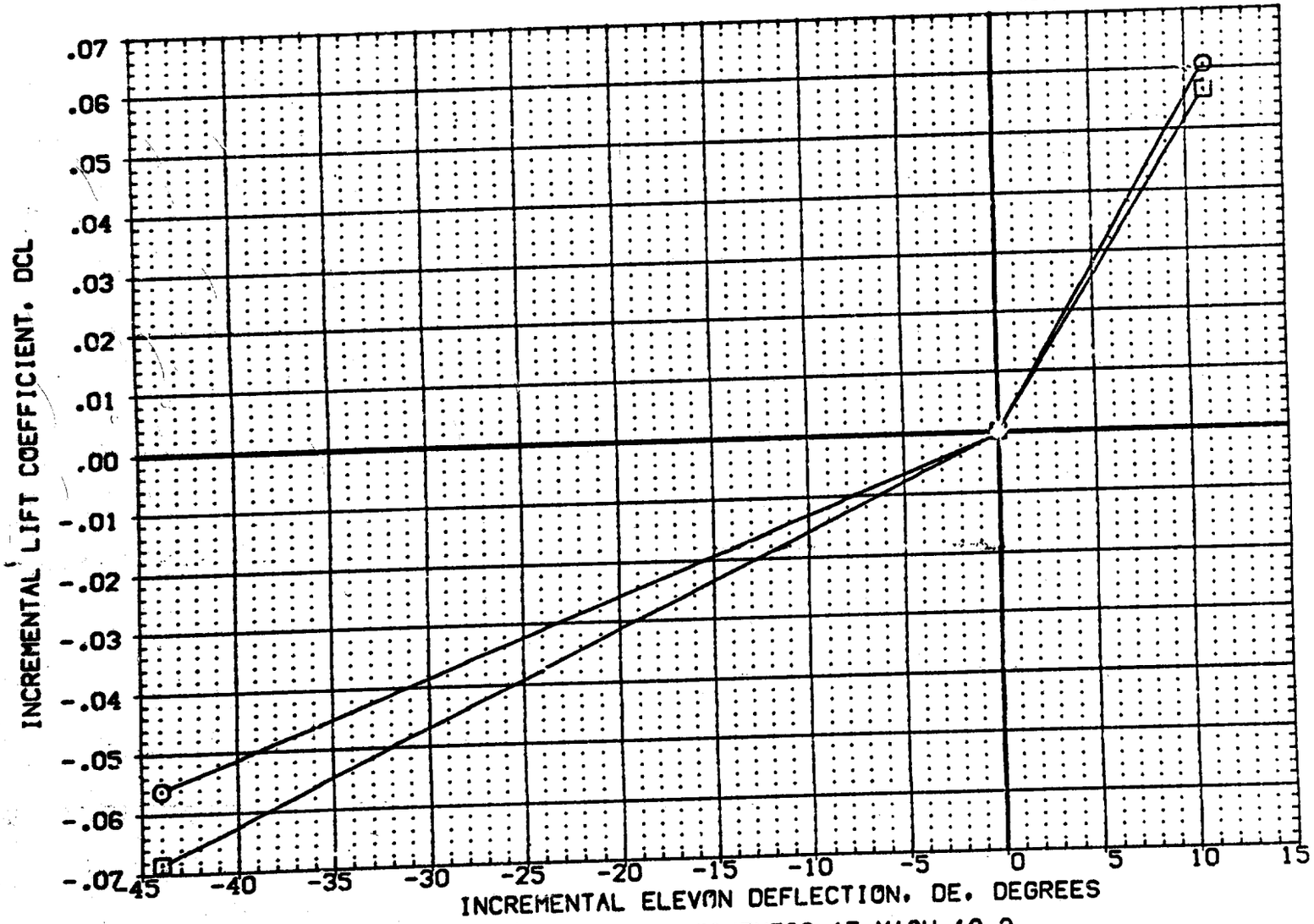


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

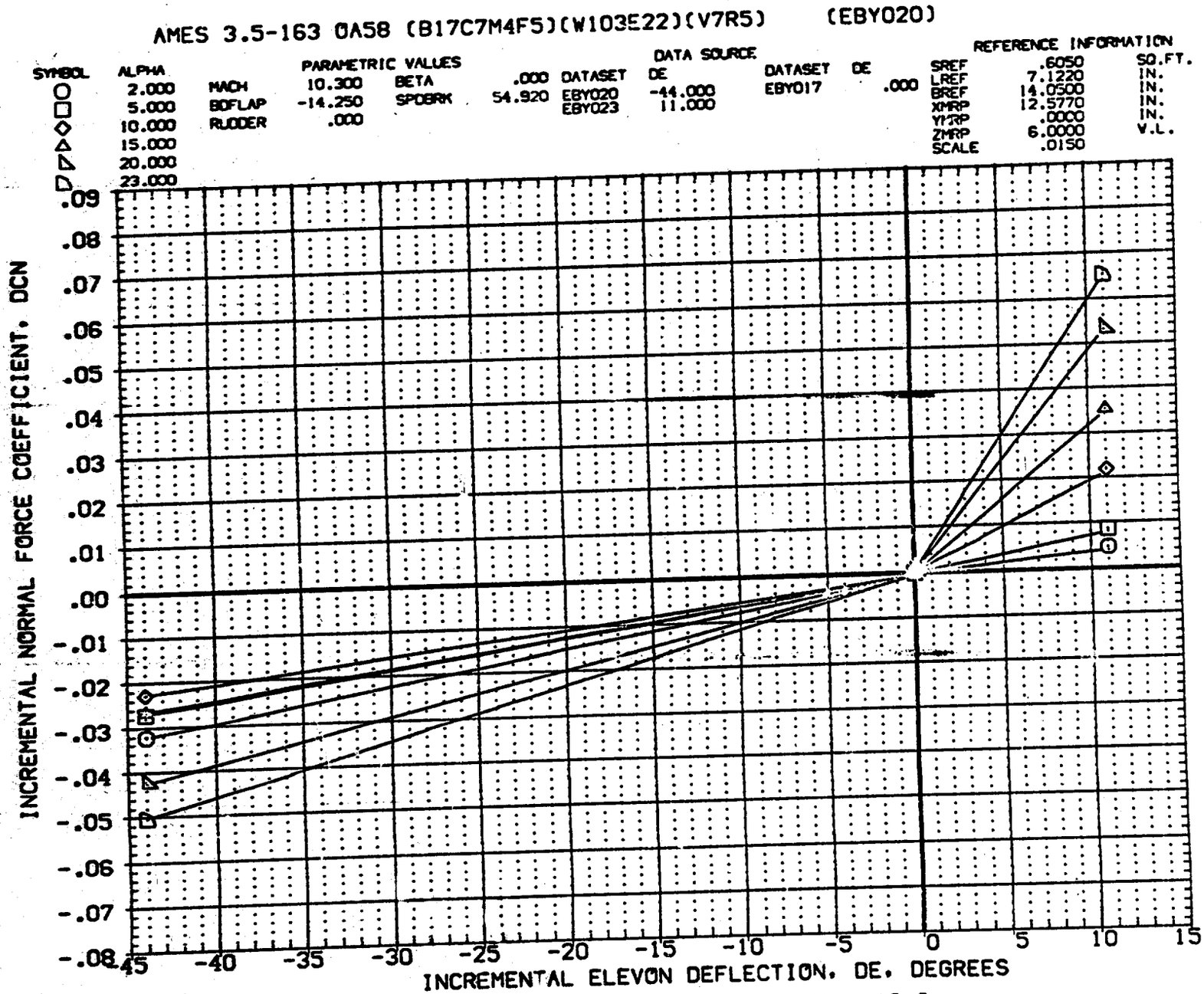


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY020)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
○	27.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF .6050 SQ.FT.
□	30.000	BDFLAP	-14.250	SPDBRK	54.920	EBY020	-44.000	EBY017	.000	LREF 7.1220 IN.
		RUDDER	.000			EBY023	11.000			BREF 14.0500 IN.
										XMRP 12.5770 IN.
										YMRP .0000 IN.
										ZMRP 6.0000 W.L.
										SCALE .0150

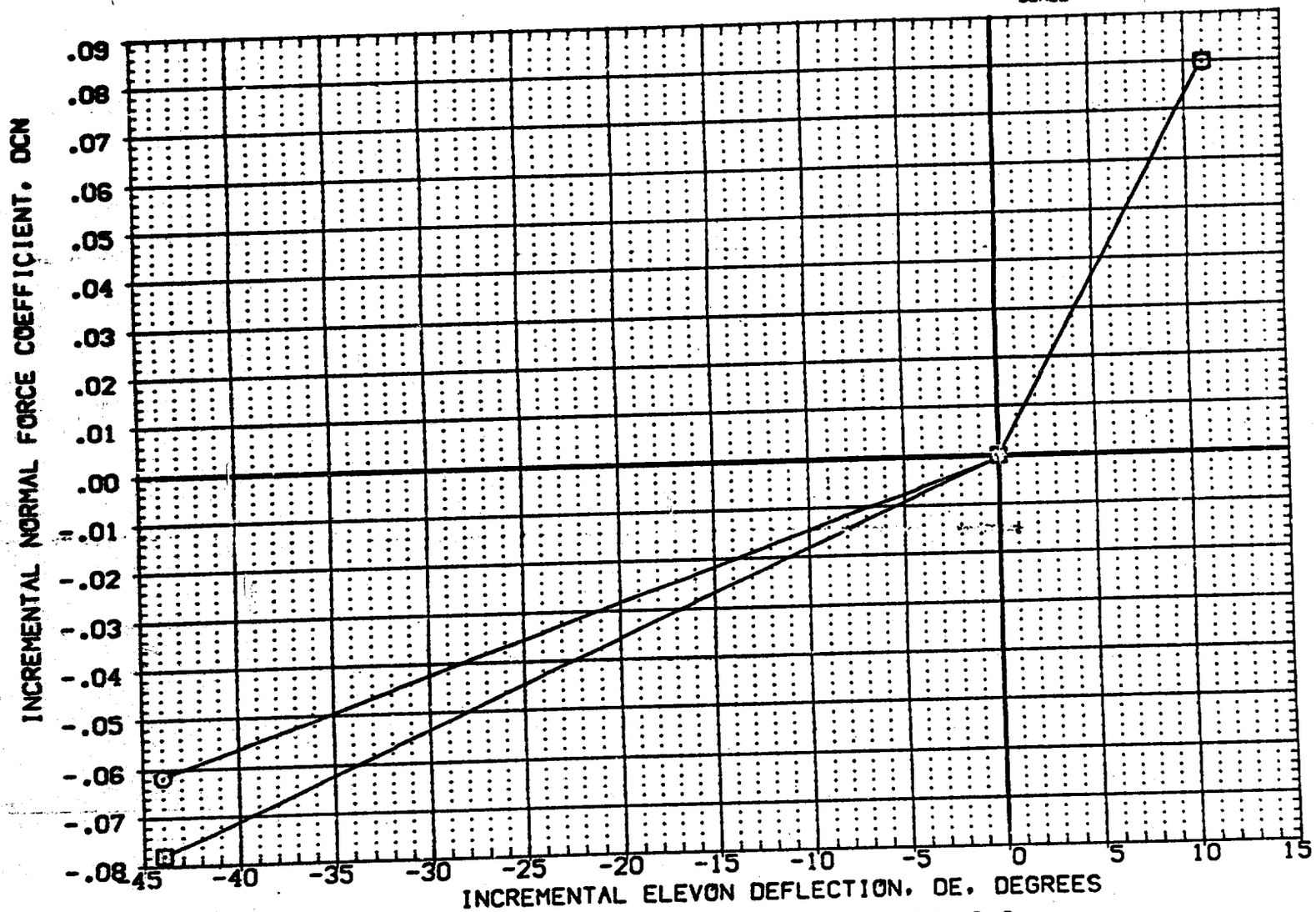


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

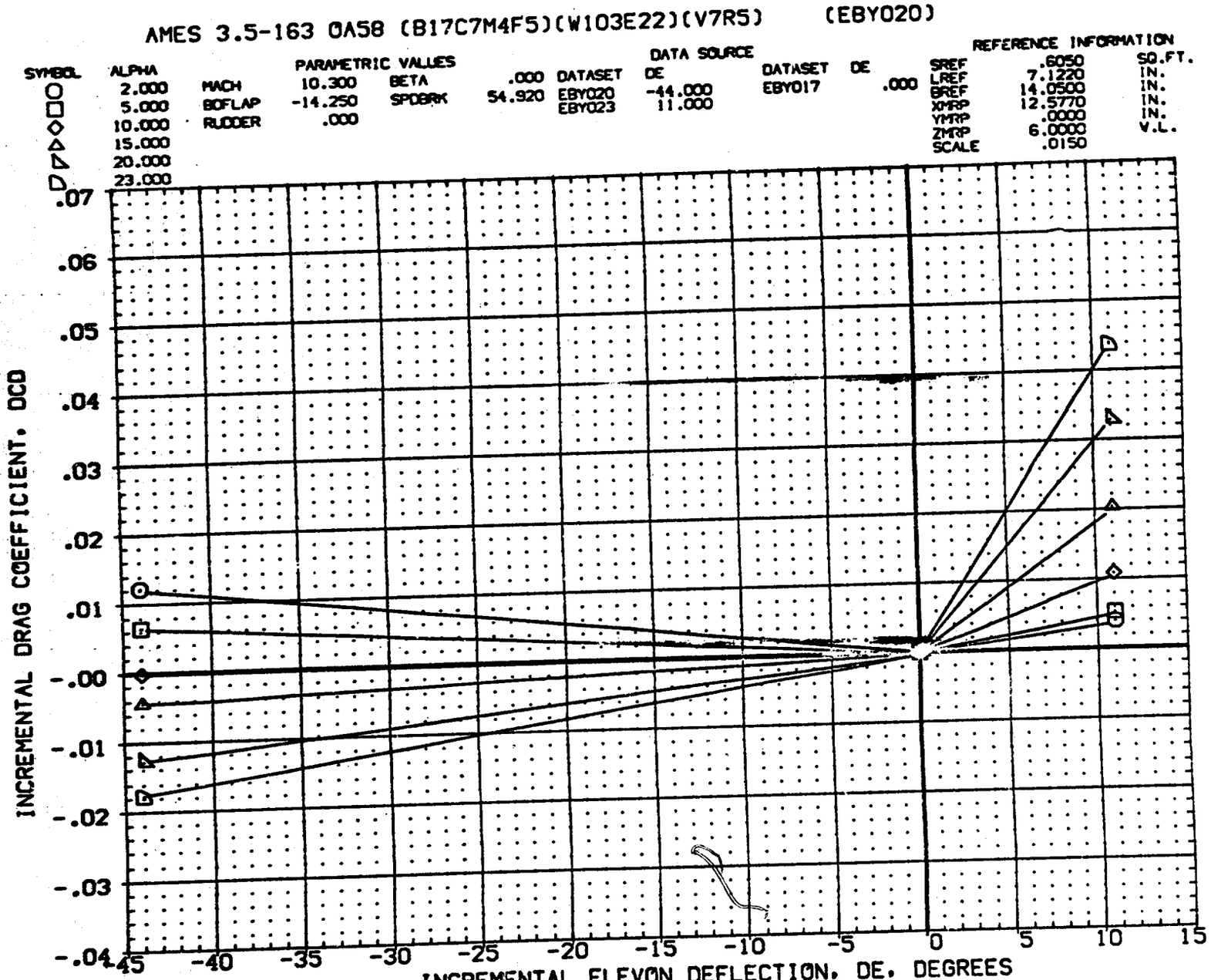


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY020)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	27.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	.000
□	30.000	BDFLAP	-14.250	SPDBRK	54.920	EBY020	-44.000	EBY017		
		RUDDER	.000			EBY023	11.000			

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

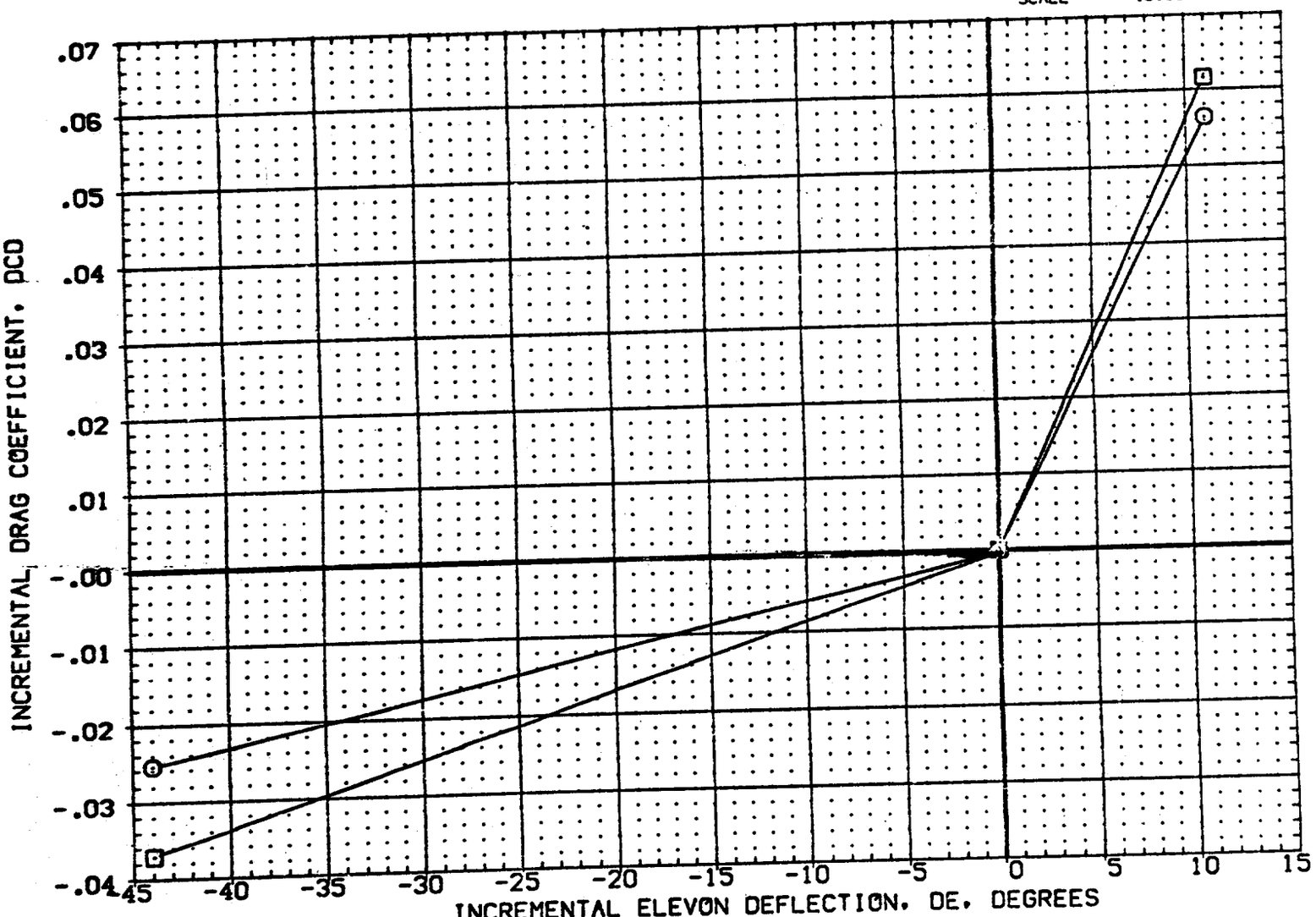


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

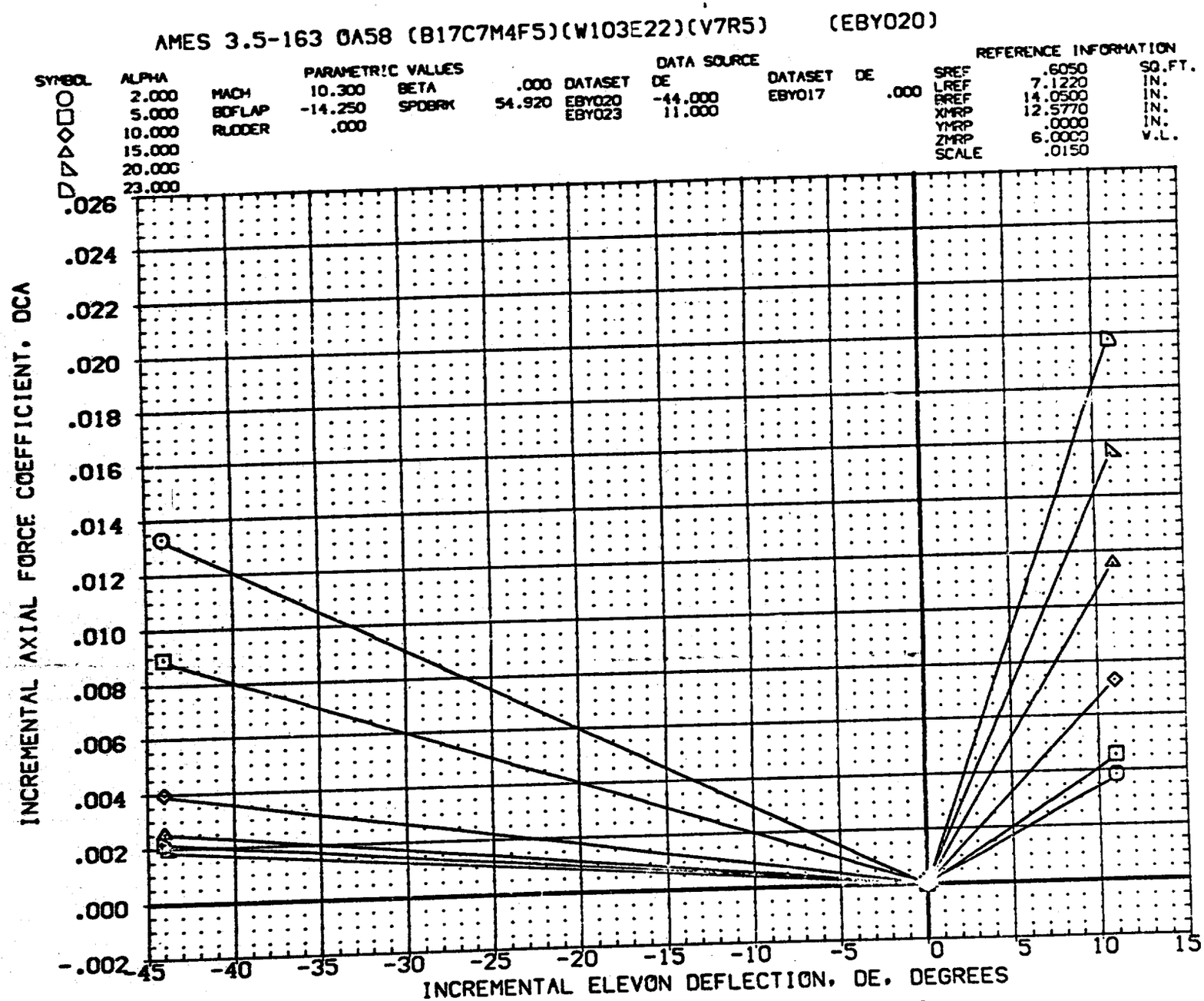


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY020)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE	SREF	.6050	SQ.FT.
□	30.000	BDFLAP	-14.250	SPDBRK	54.920	EBY020	-44.000	EBY017	.000	LREF	7.1220	IN.
		RUDDER	.000			EBY023	11.000			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

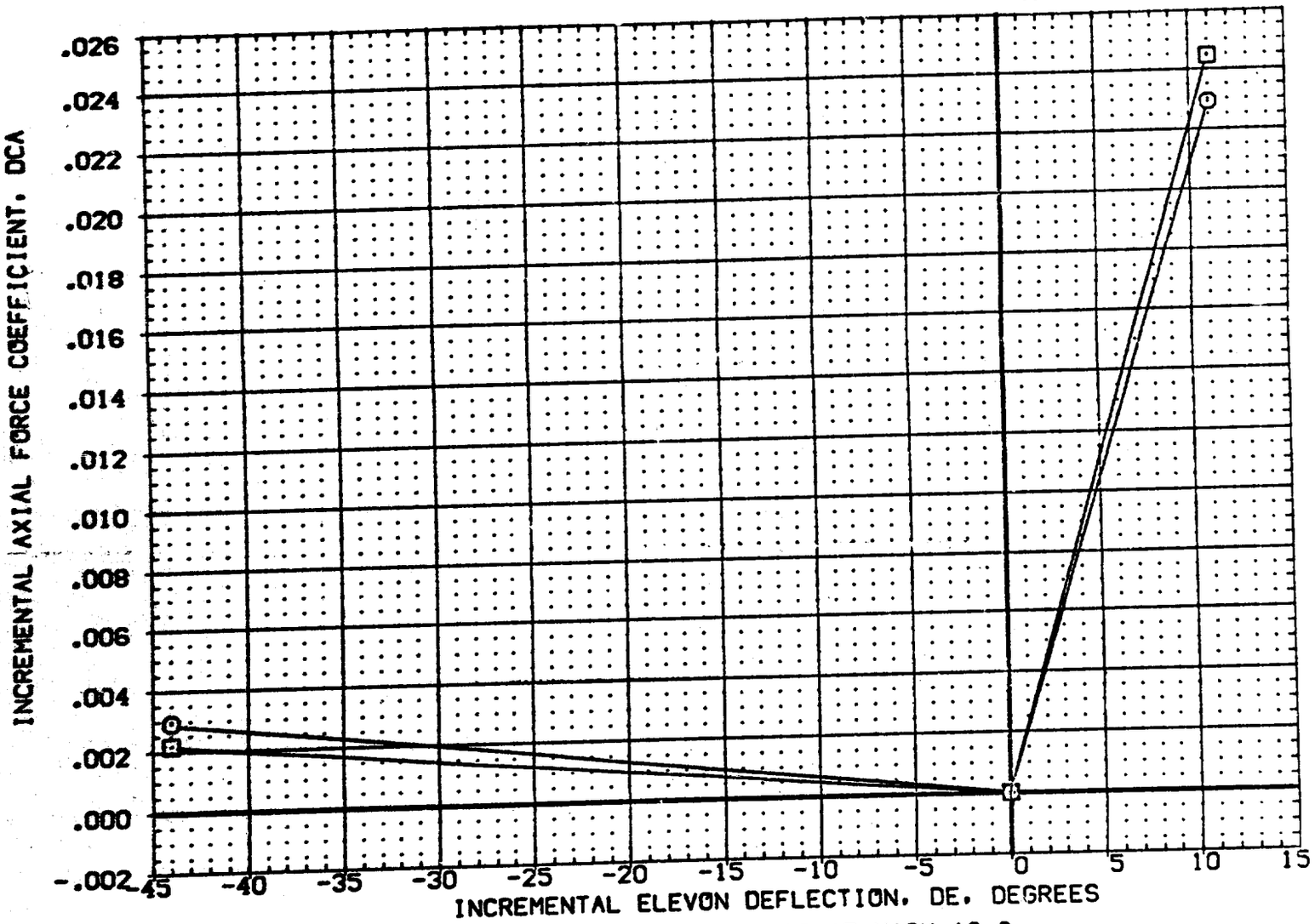


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

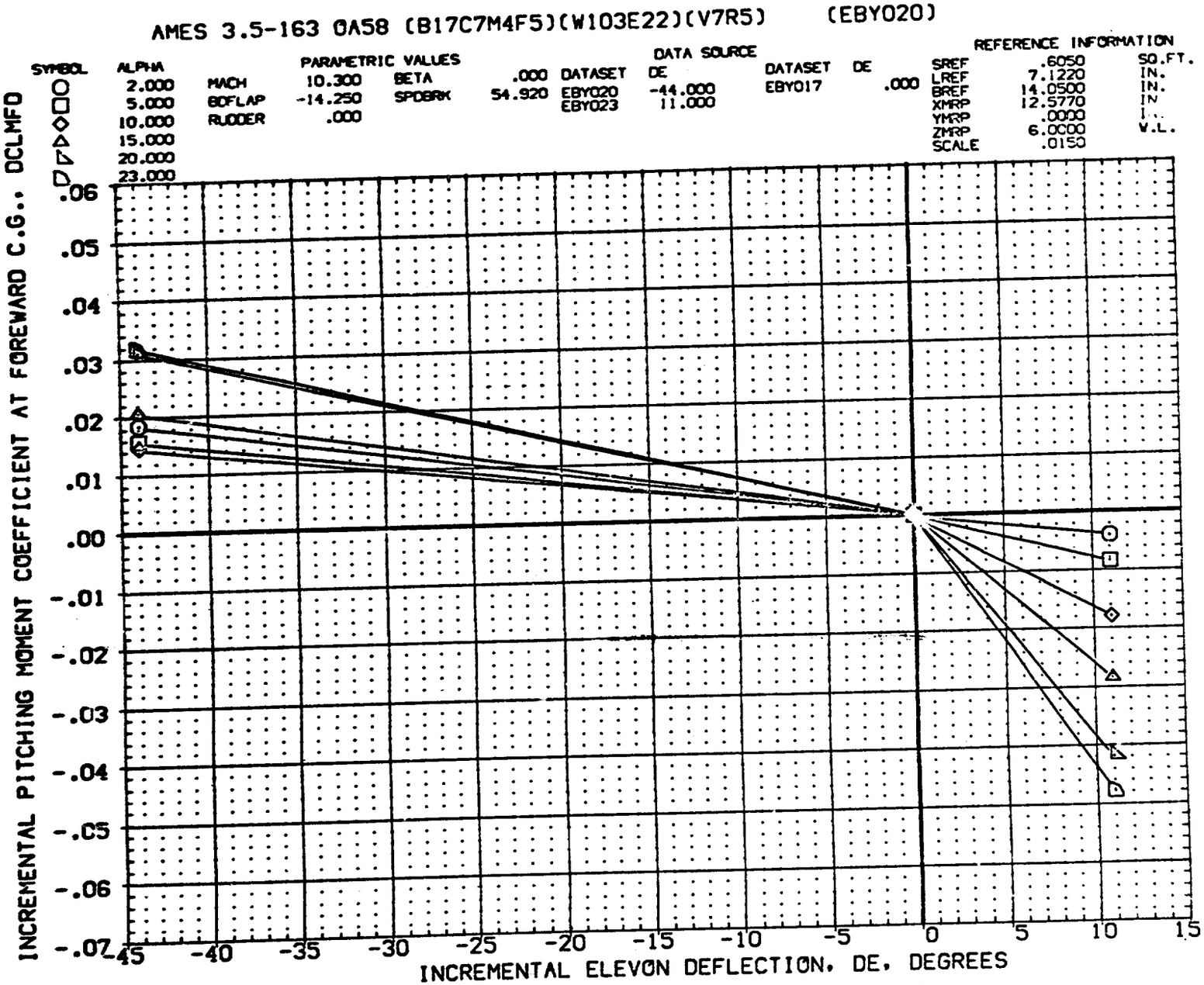


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

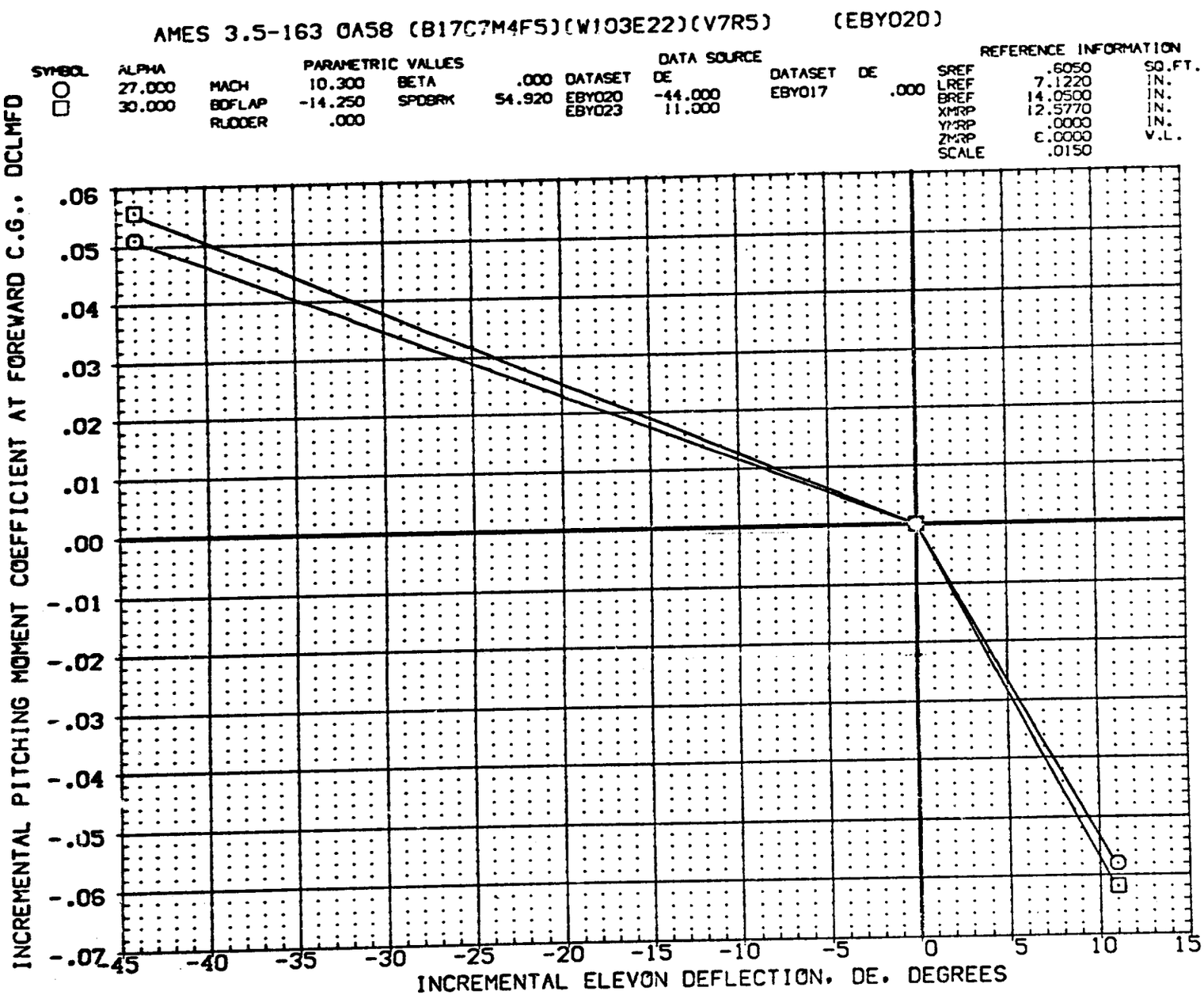


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

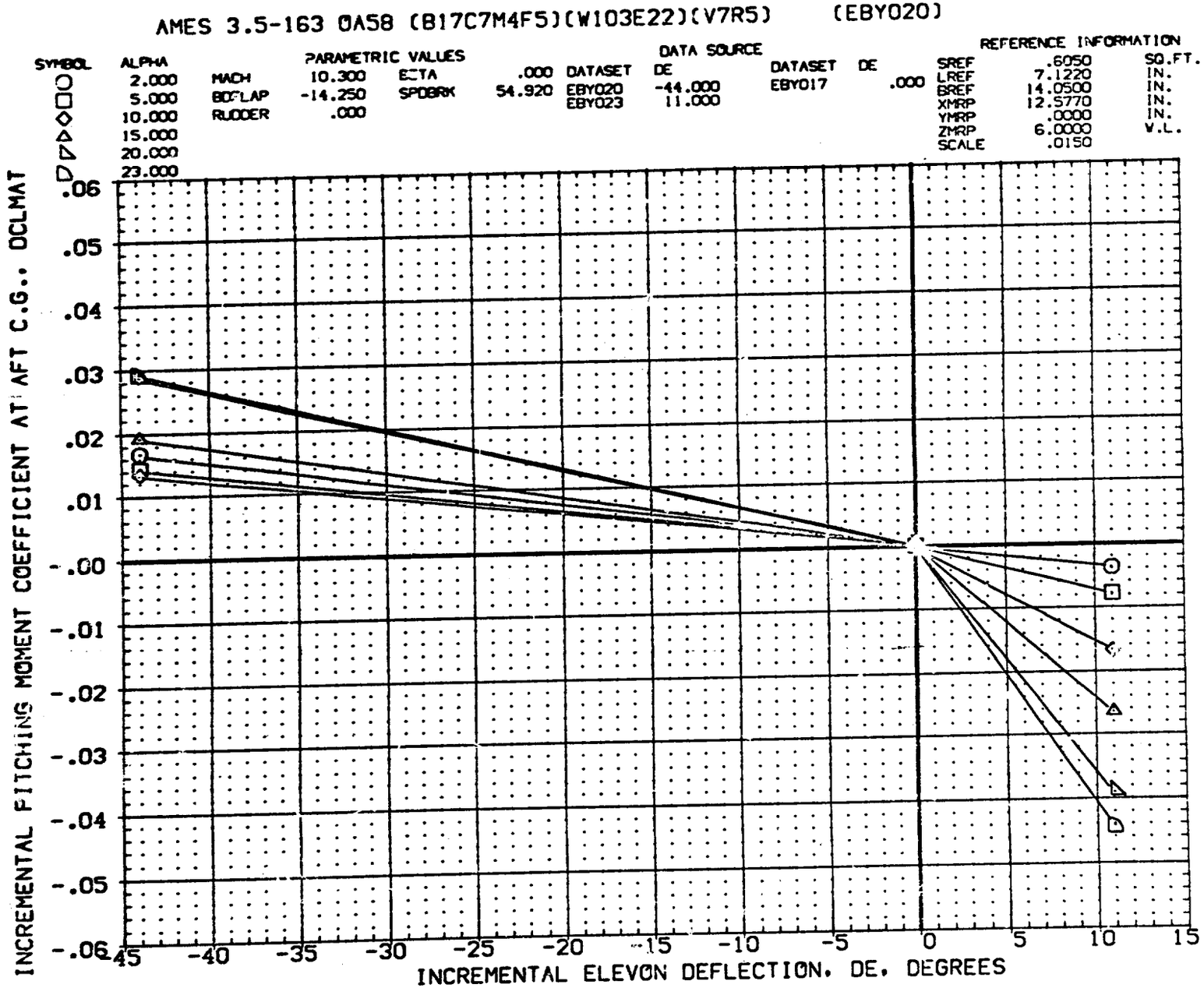


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (EBY020)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			
○	27.000	MACH	10.300	BETA	.000	DATASET	DE	DATASET	DE
□	30.000	BOFLAP	-14.250	SPDBRK	54.920	EBY020	-44.000	EBY017	.000
		RUDDER	.000			EBY023	11.000		

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0600	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

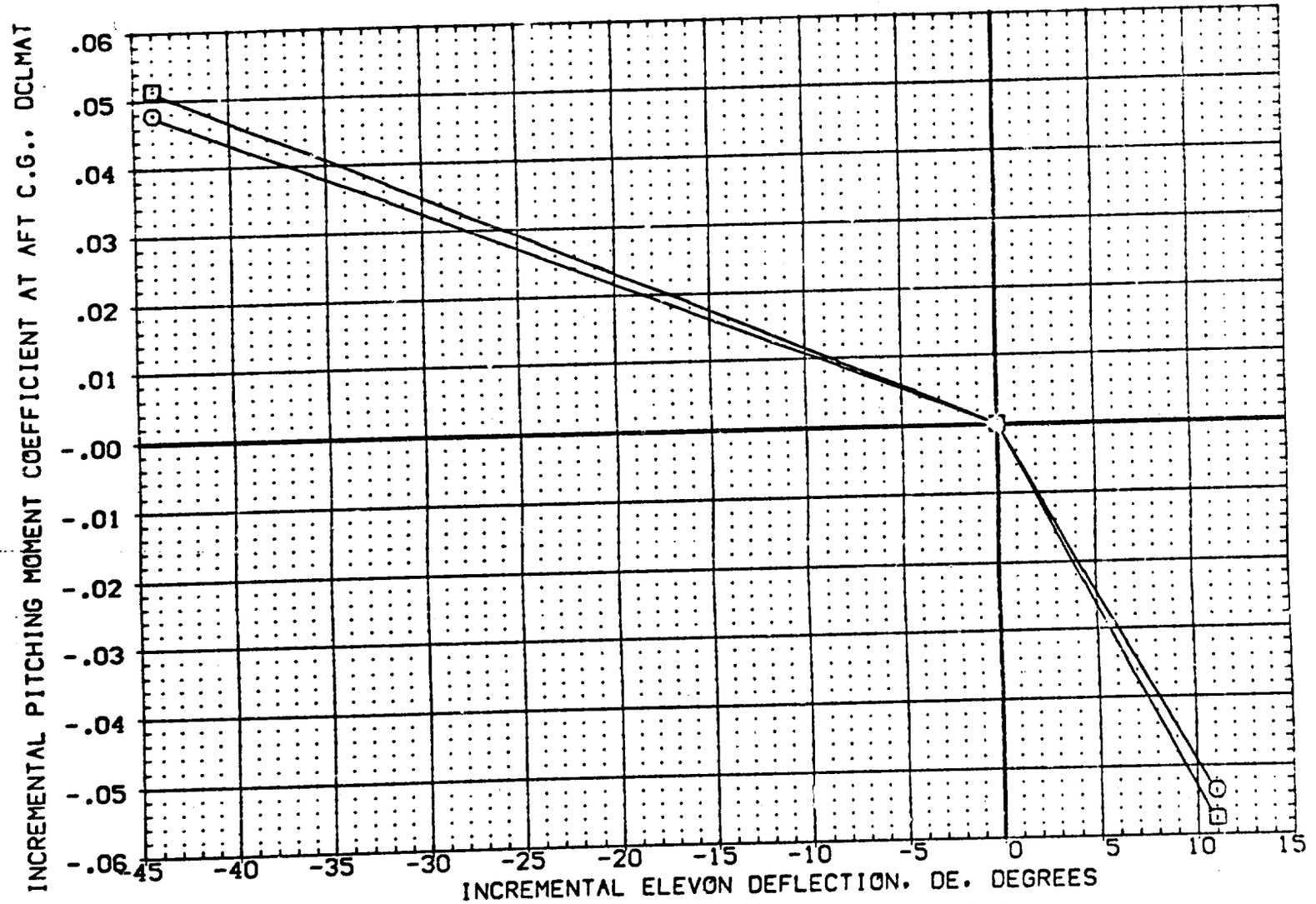


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8YO18)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(I8YO16)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8YC27)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8YO25)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(B8YO30)	◁	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(B8YO28)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

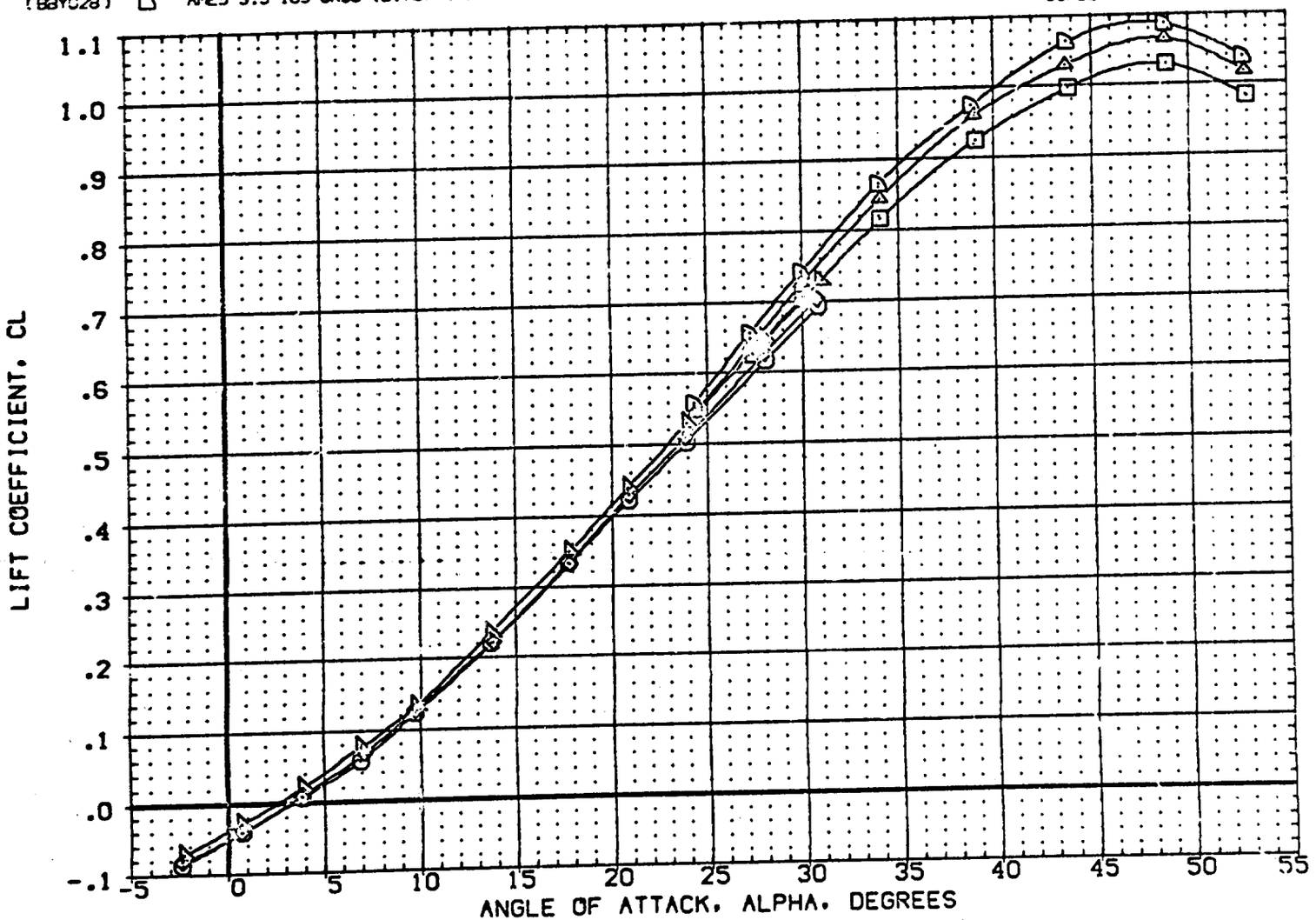


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y018)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y016)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y027)	⊠	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y025)	⊠	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y030)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(88Y028)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

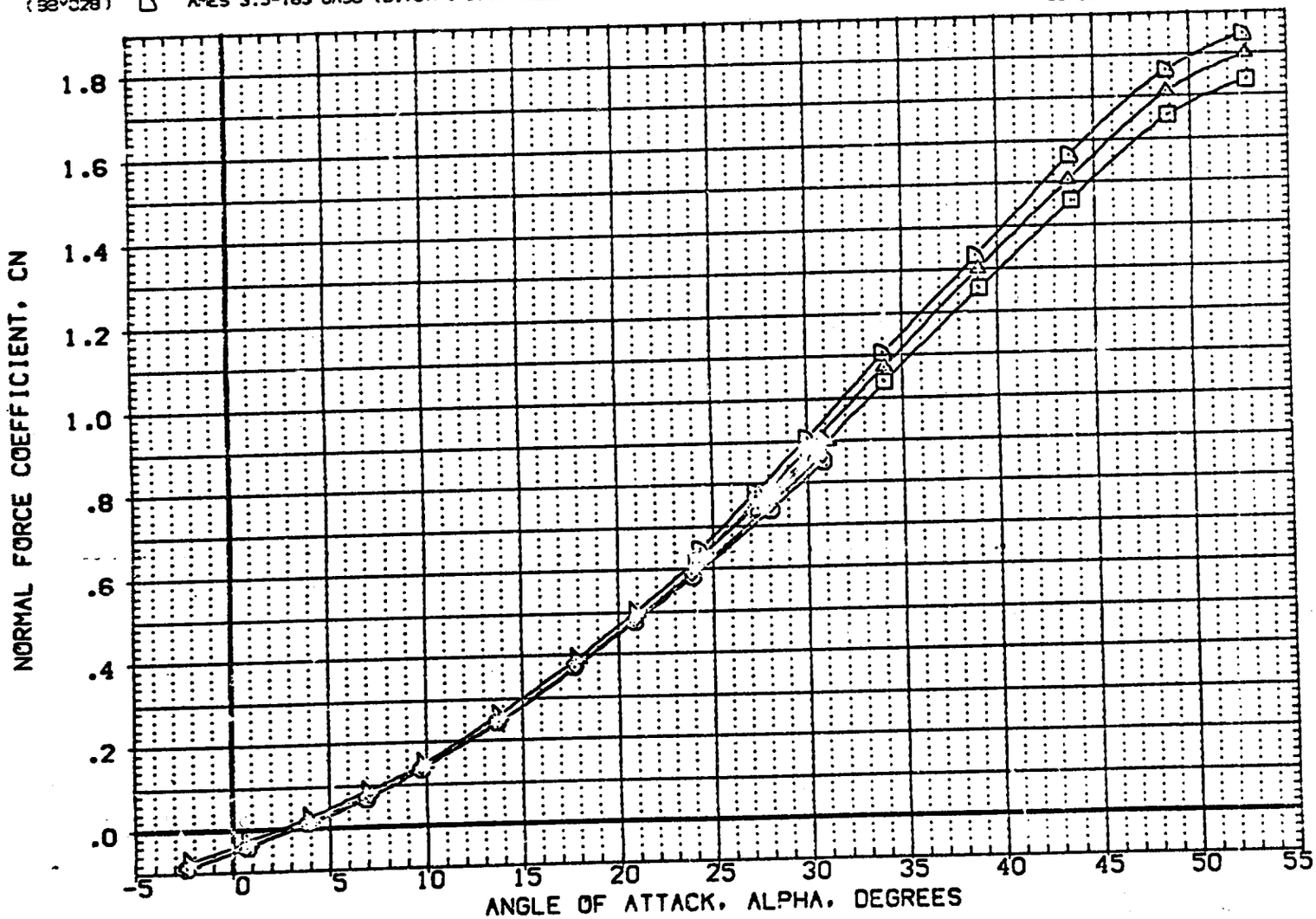


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY018)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(1BY016)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B3Y027)	△	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B3Y025)	▽	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B3Y030)	◁	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(B3Y028)	▷	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

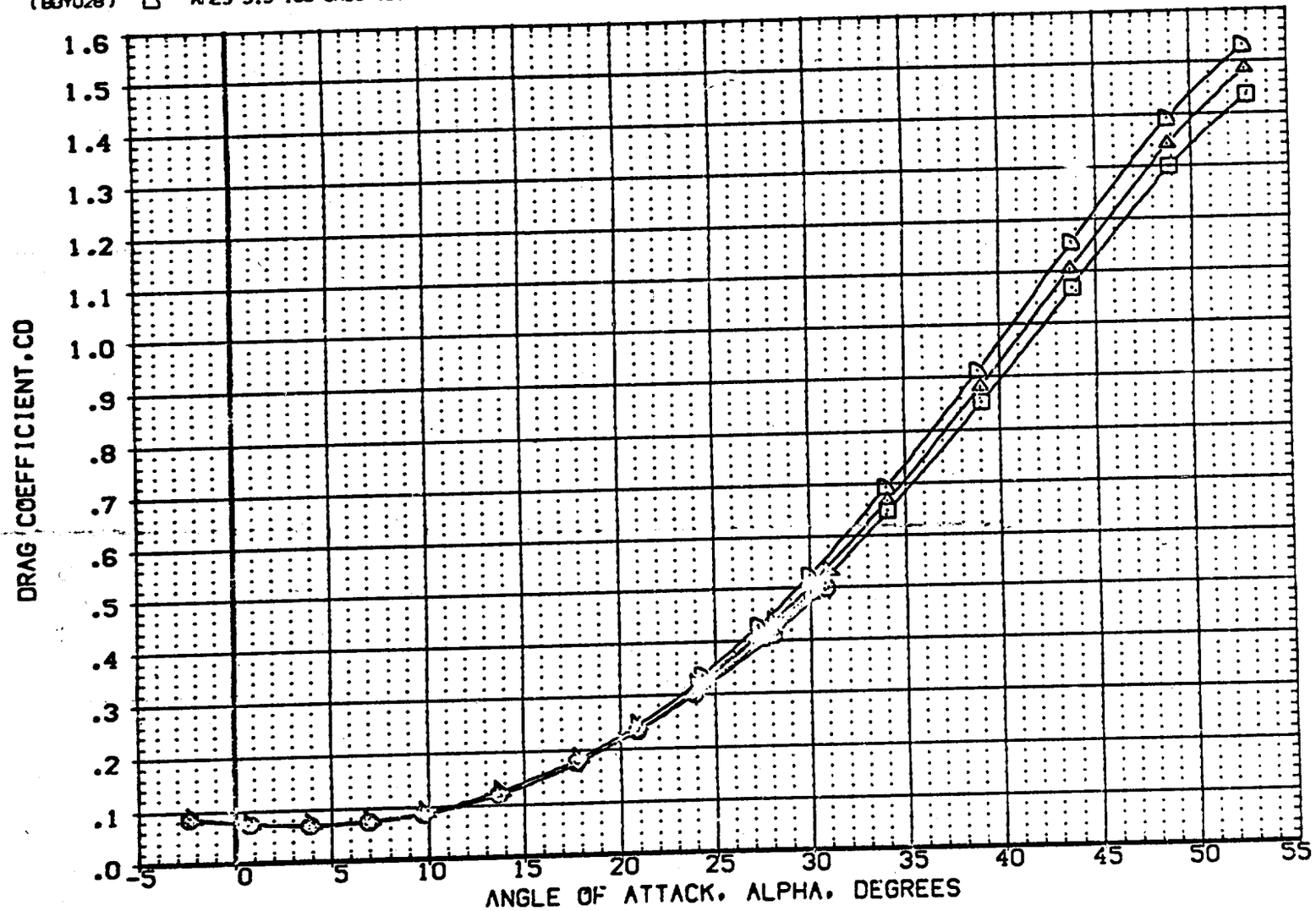


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B8Y018)	□	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(19Y016)	◇	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y027)	△	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y025)	▽	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y030)	◁	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(B8Y028)	▷	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

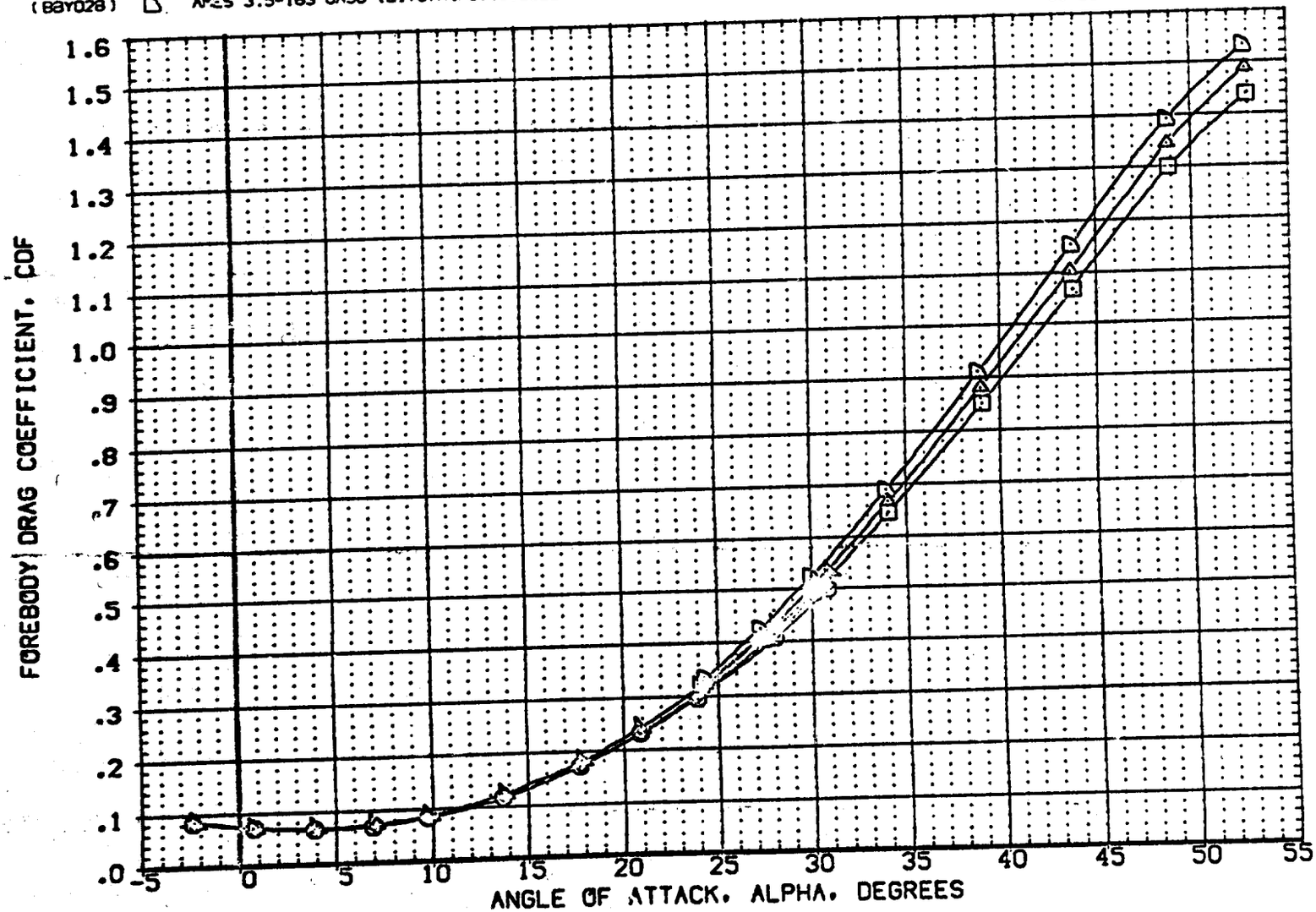


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y018)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(18Y016)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(83Y027)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.030	.000	54.920
(88Y025)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(83Y030)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(88Y028)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

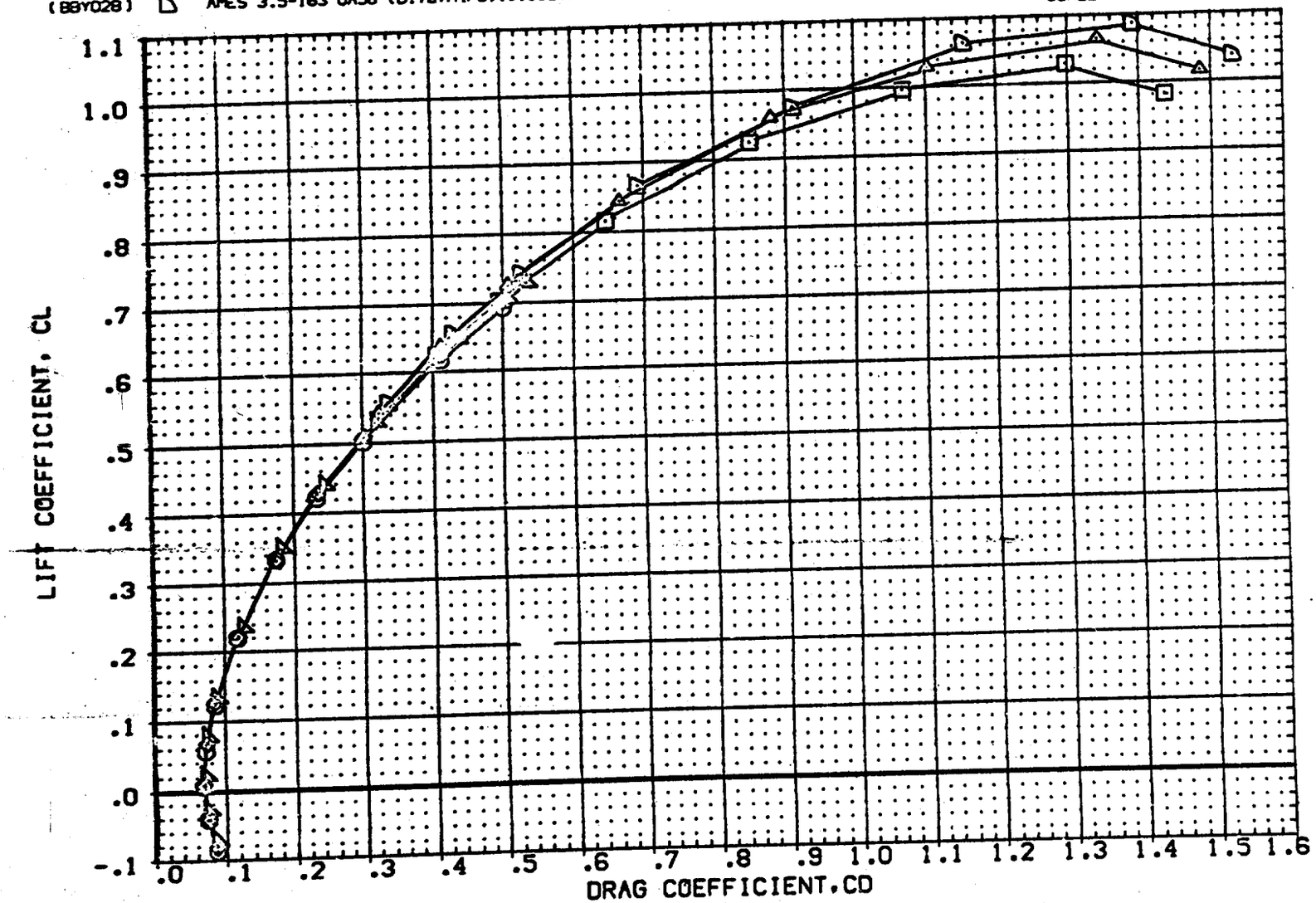


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(B8Y018)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(1BY016)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y027)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
B3Y025)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
B3YC30)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
B8Y028)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6C50	SQ.FT.
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BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

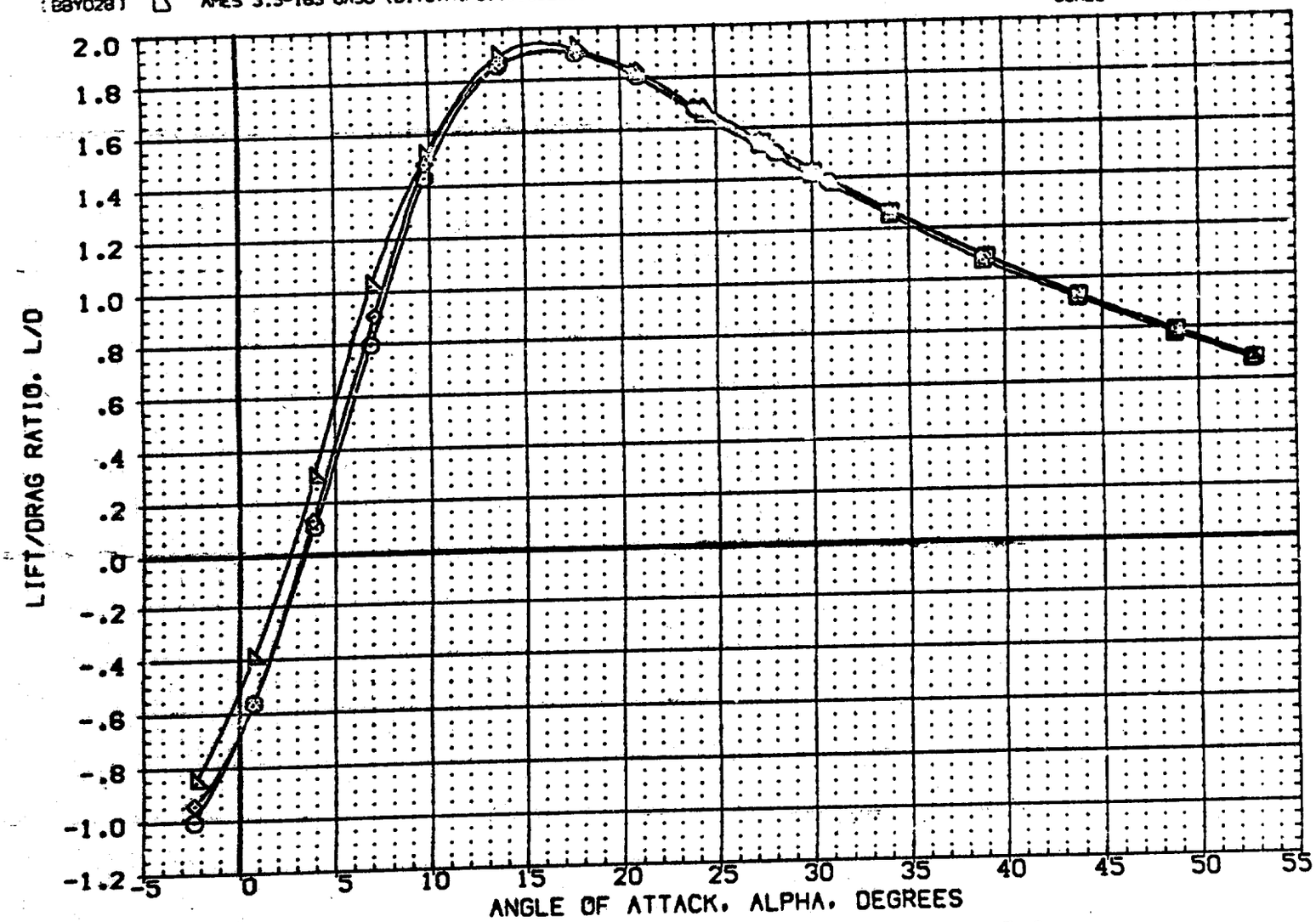


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPDBRK
(BBY018)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(1BY016)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY027)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY025)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY030)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(BBY028)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

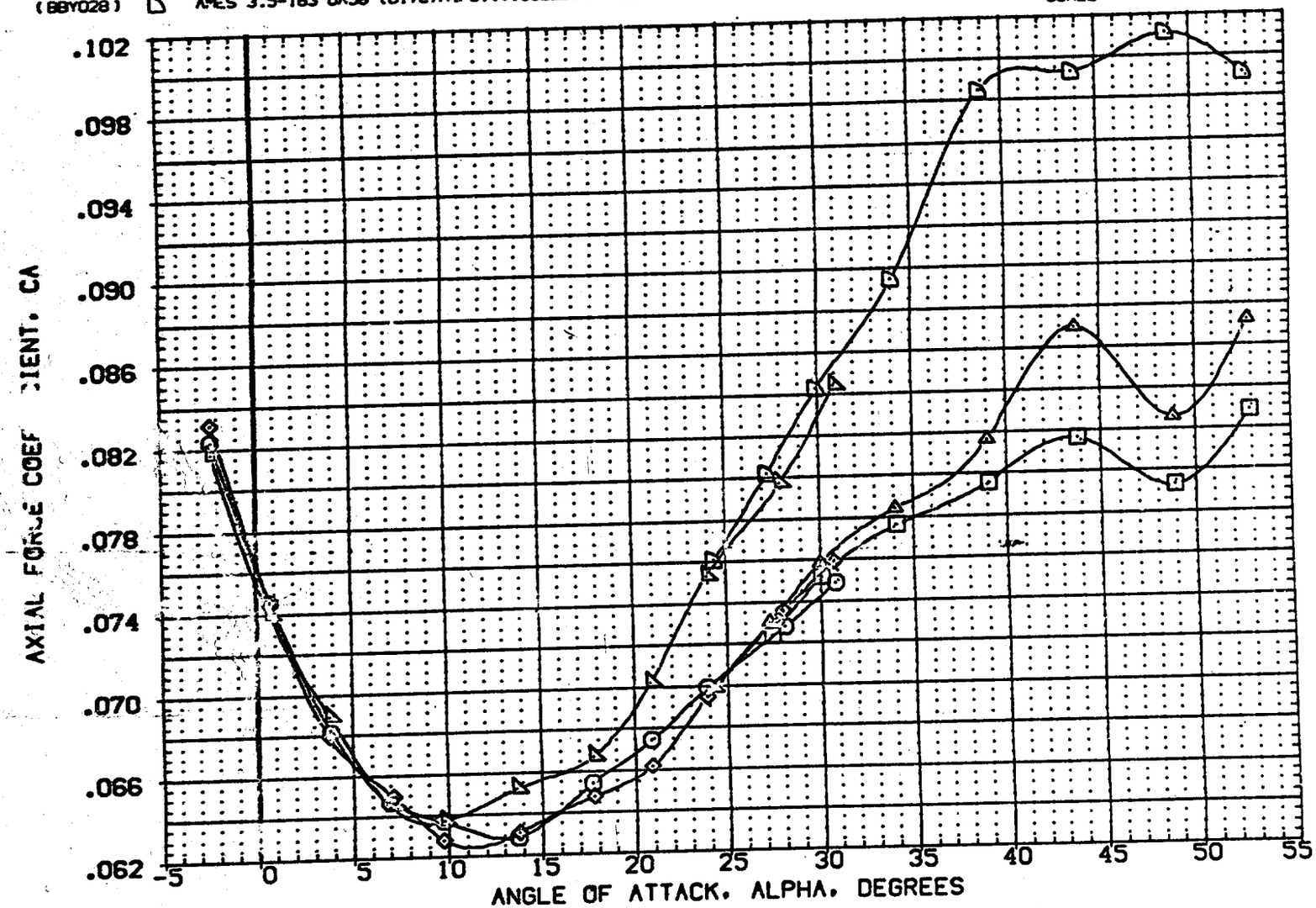


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

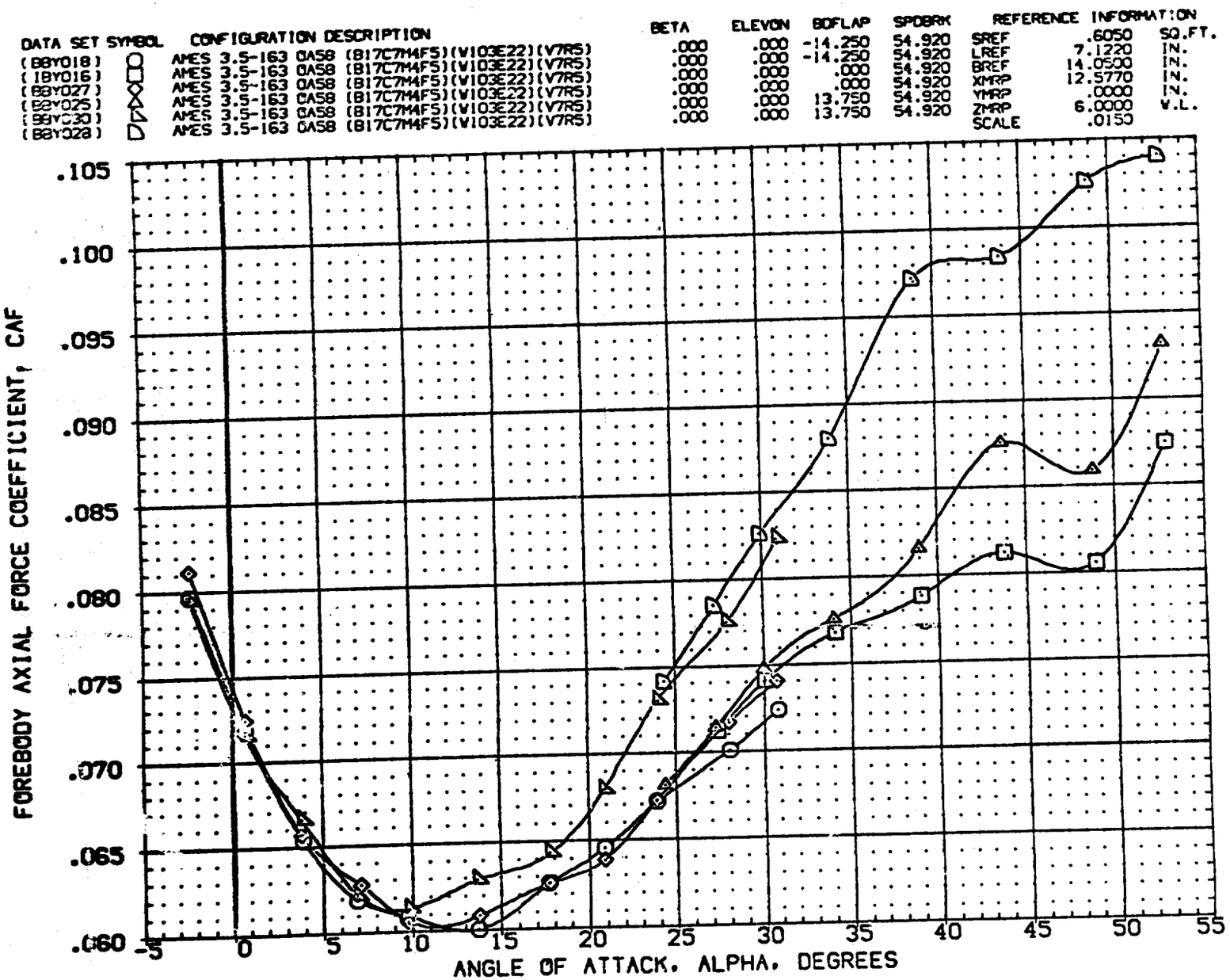


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBYC18)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(IBYC16)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBYC27)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBYC25)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(BBYD30)	AMES 3.5-163 0A59 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(BBYD28)	AMES 3.5-163 0A59 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

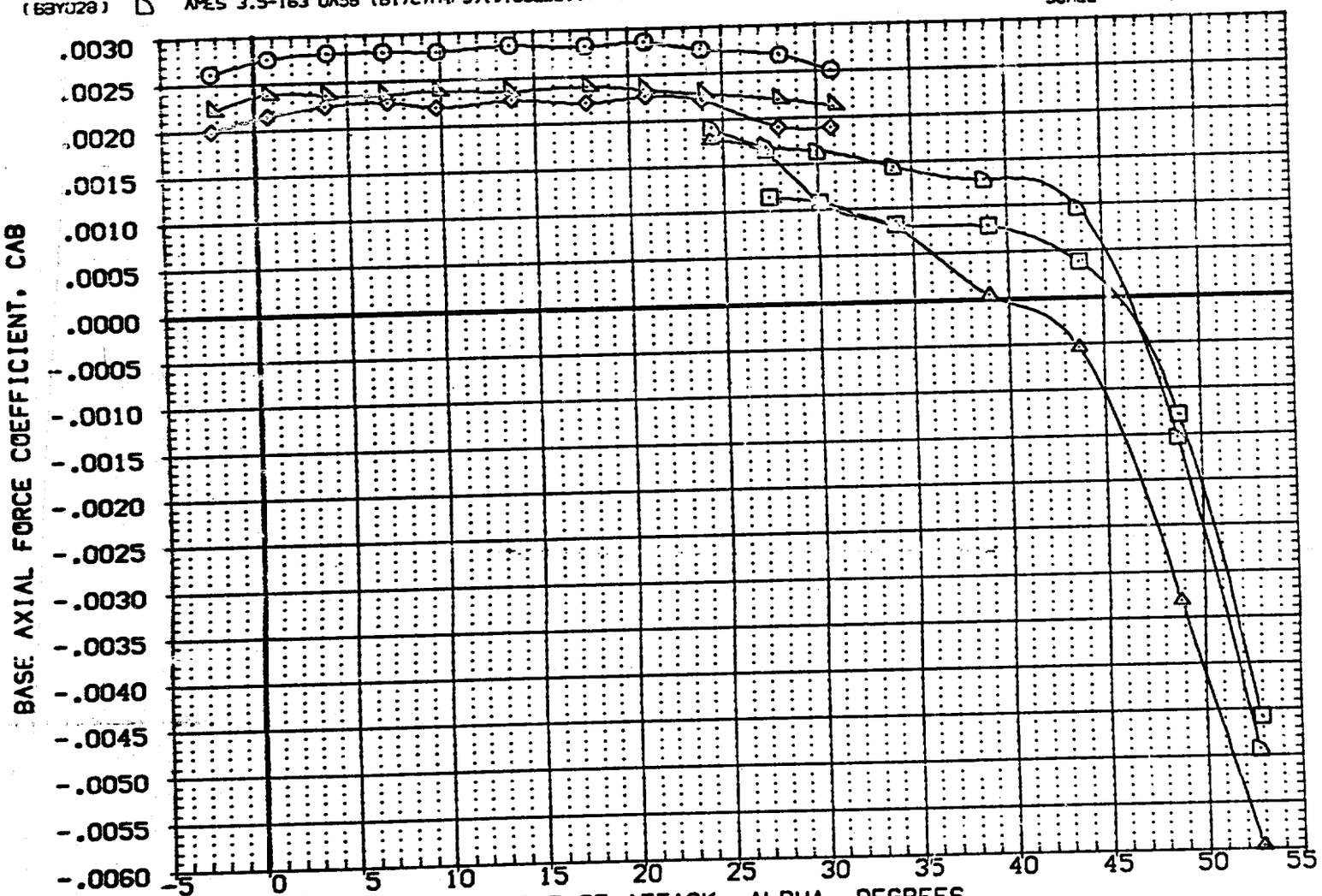


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(88YO18)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88YO16)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(83YO27)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(83YO25)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88YO23)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(88YO28)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

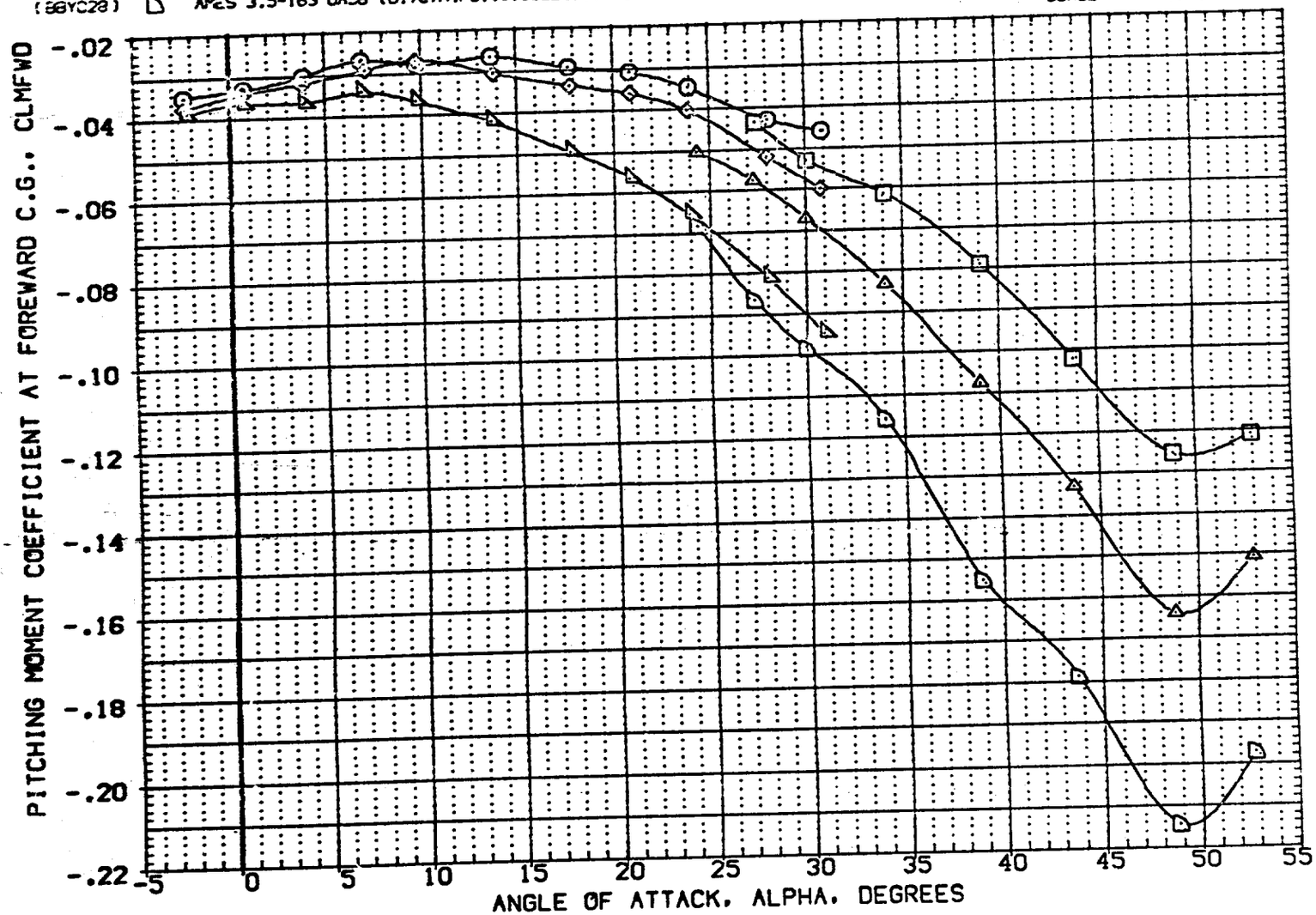


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY018)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(IBY016)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY027)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY025)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(BBY030)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(BBY028)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)				

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

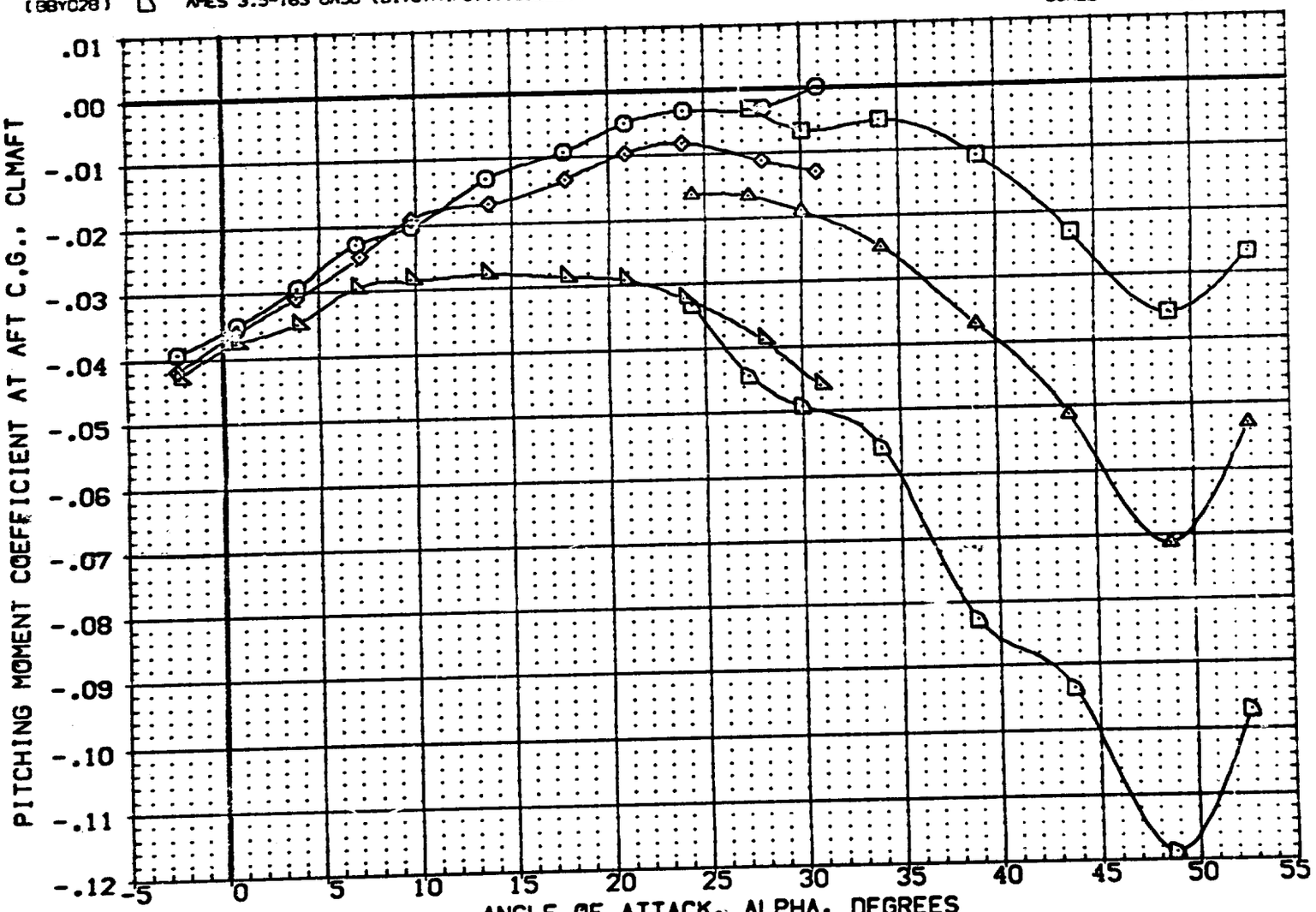


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y018)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(18Y016)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y027)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y025)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(83Y030)	▷	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(88Y028)	▽	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

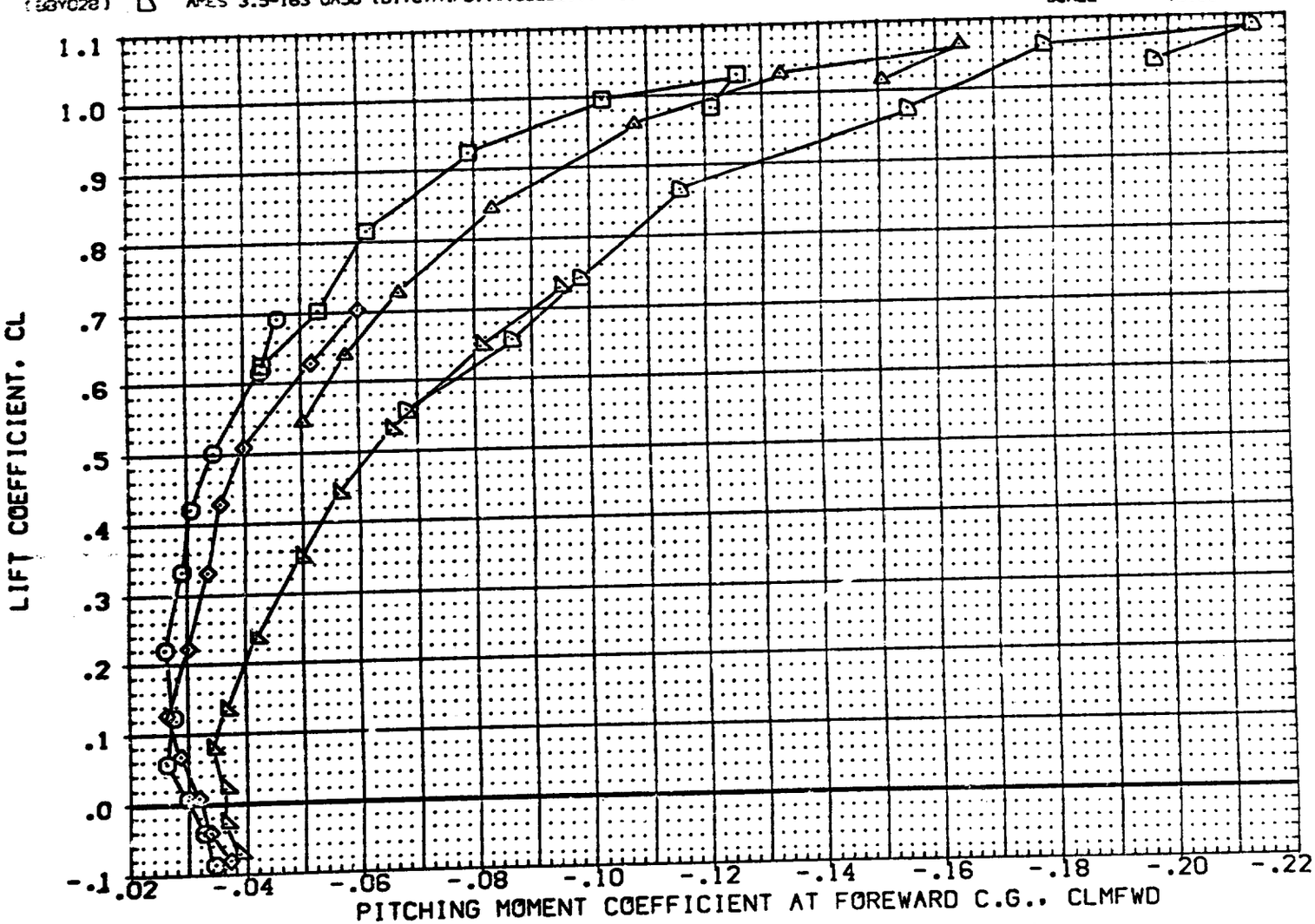


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(88Y018)	□	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(18Y016)	▽	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y027)	◇	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y025)	△	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y030)	○	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(88Y028)	▷	AMES 3.5-163 CA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

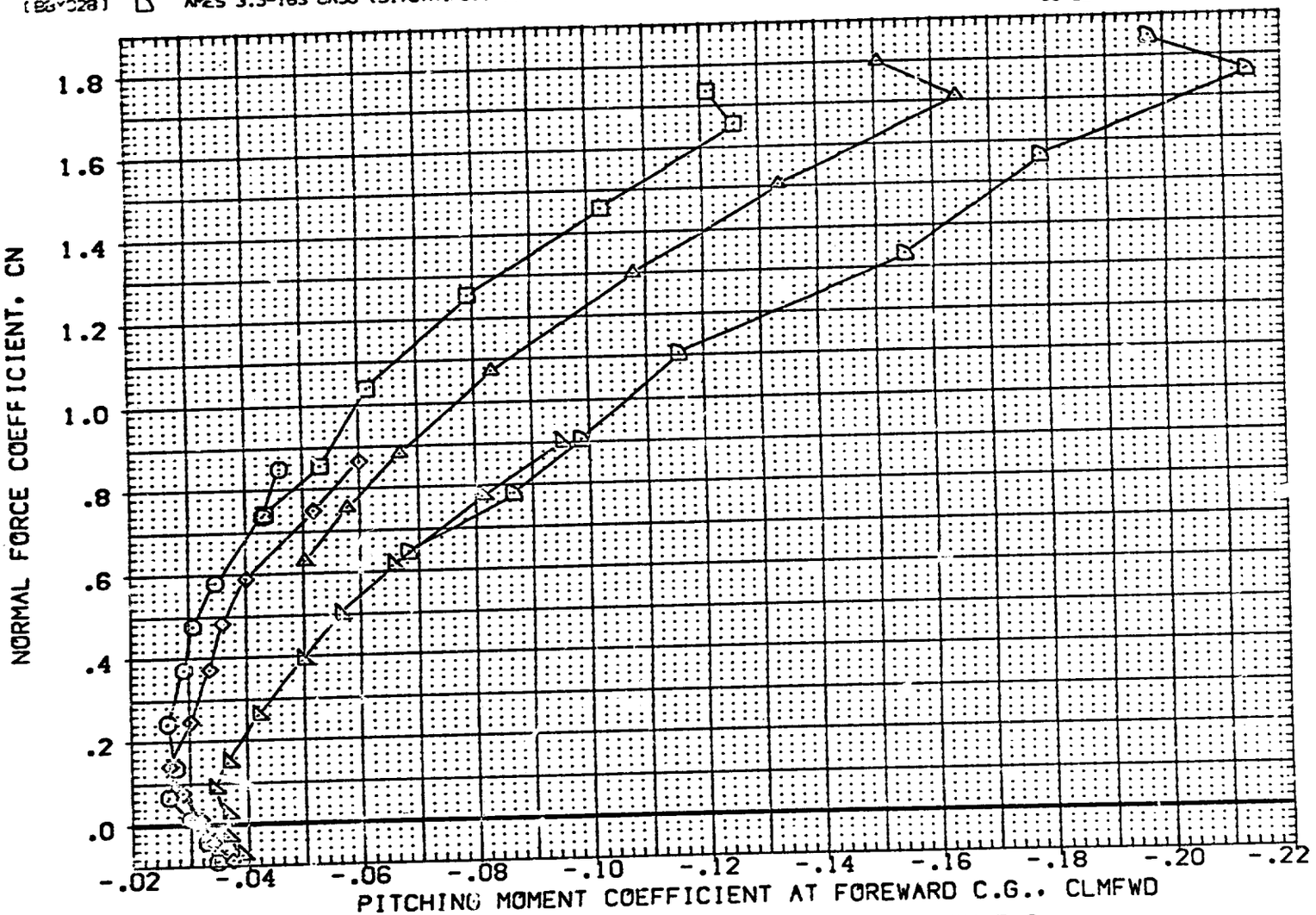


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.32

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(RBY018)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	-14.250	54.920
(RBY016)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	-14.250	54.920
(RBY027)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	.000	54.920
(RBY025)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	.000	54.920
(RBY030)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	13.750	54.920
(RBY028)		AMES 3.5-163 CAS8 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

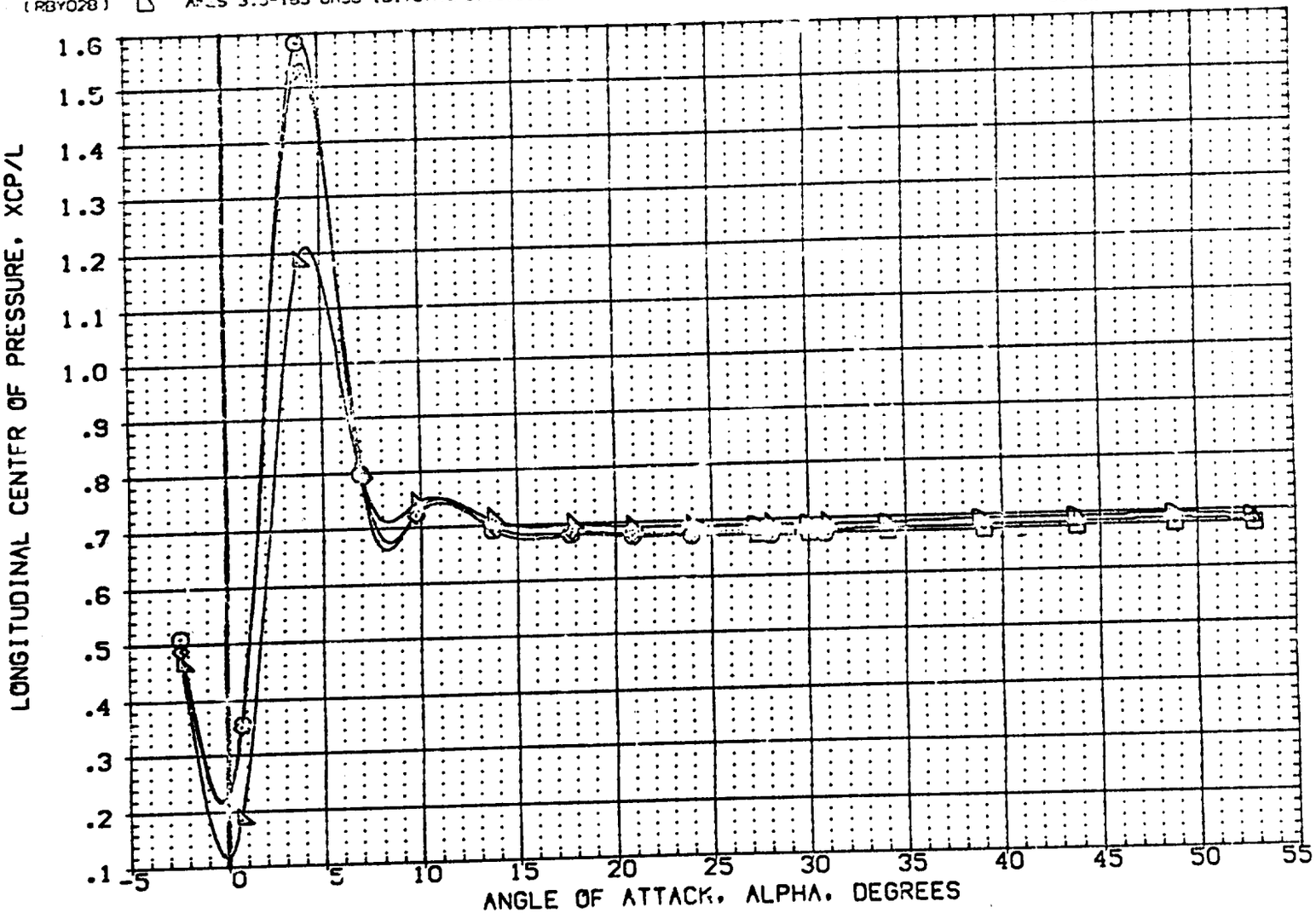


FIG. 11 CONFIGURATION -139 ELEVON EFFECTIVENESS AT MACH 10.3

(A)MACH = 7.32

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY018)	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY016)	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY030)	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	13.750	54.920
(SBY028)	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

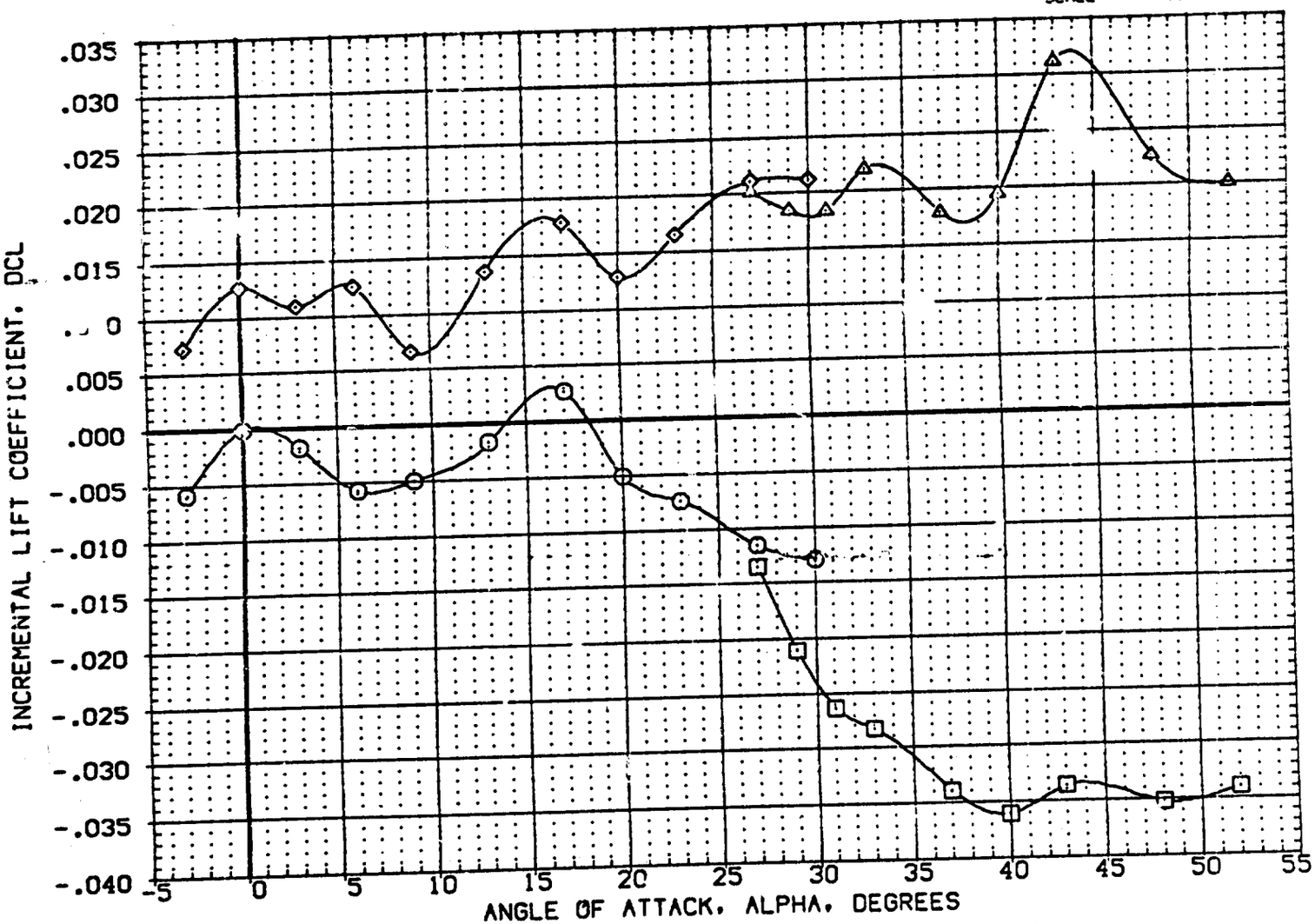


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBYO18)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYO16)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYO30)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(SBYO28)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

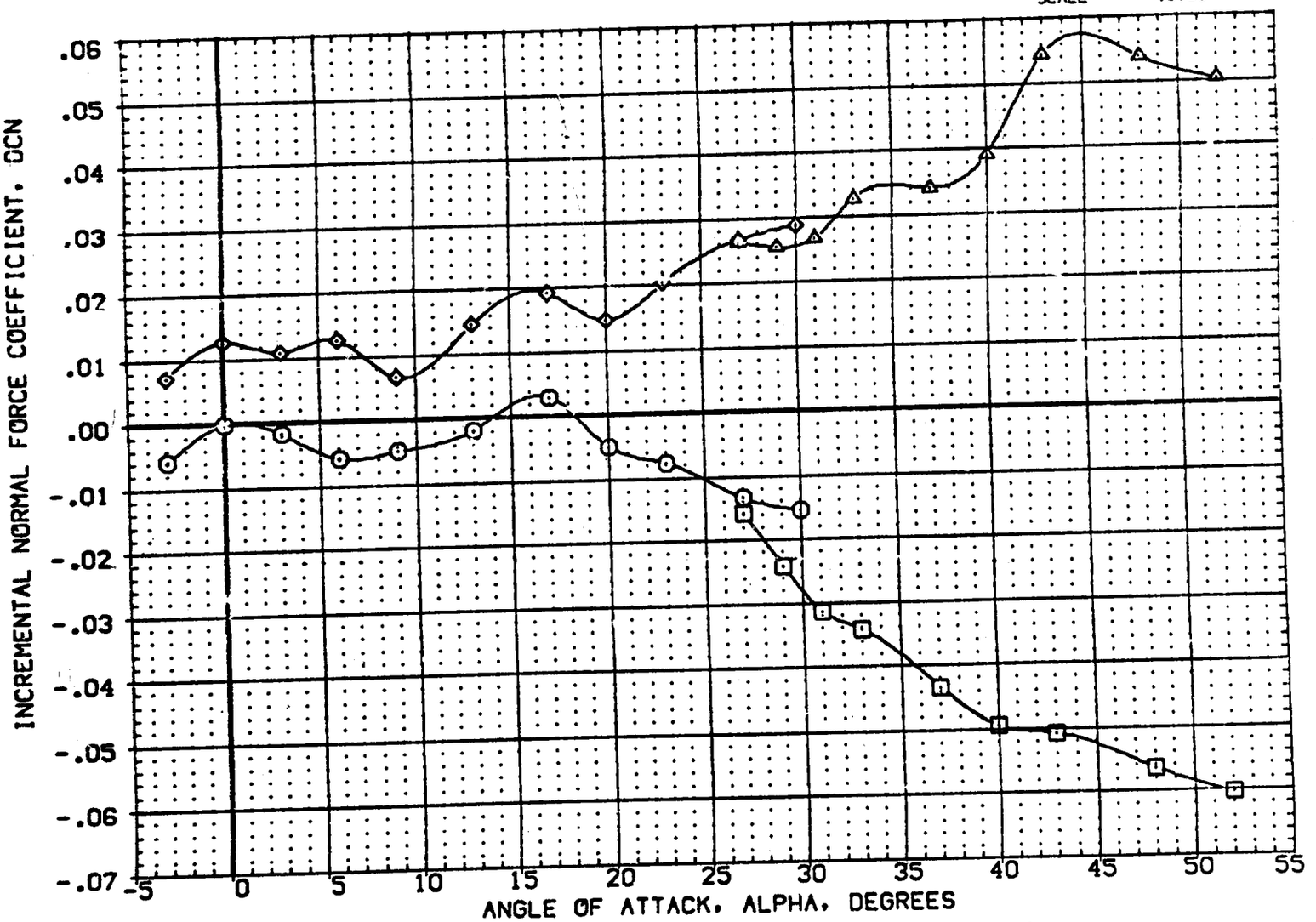


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBYO18)	○	AMES 3.5-163 OASB (B17C7M [illegible]5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYO16)	□	AMES 3.5-163 OASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYO30)	◇	AMES 3.5-163 OASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(SBYO28)	△	AMES 3.5-163 OASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

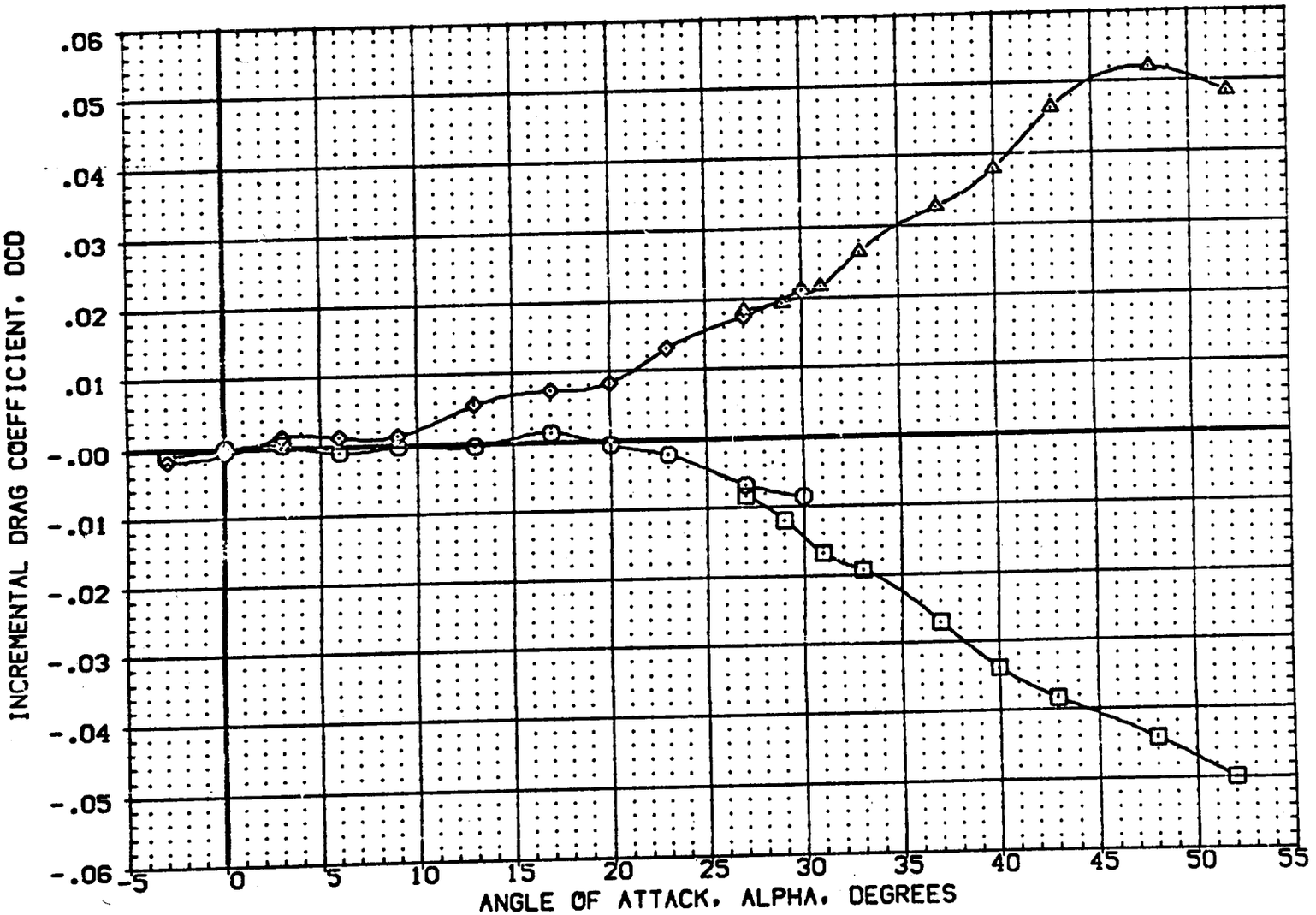


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBY018)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY016)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY030)	⊠	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.030	.000	13.750	54.920
(SBY028)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

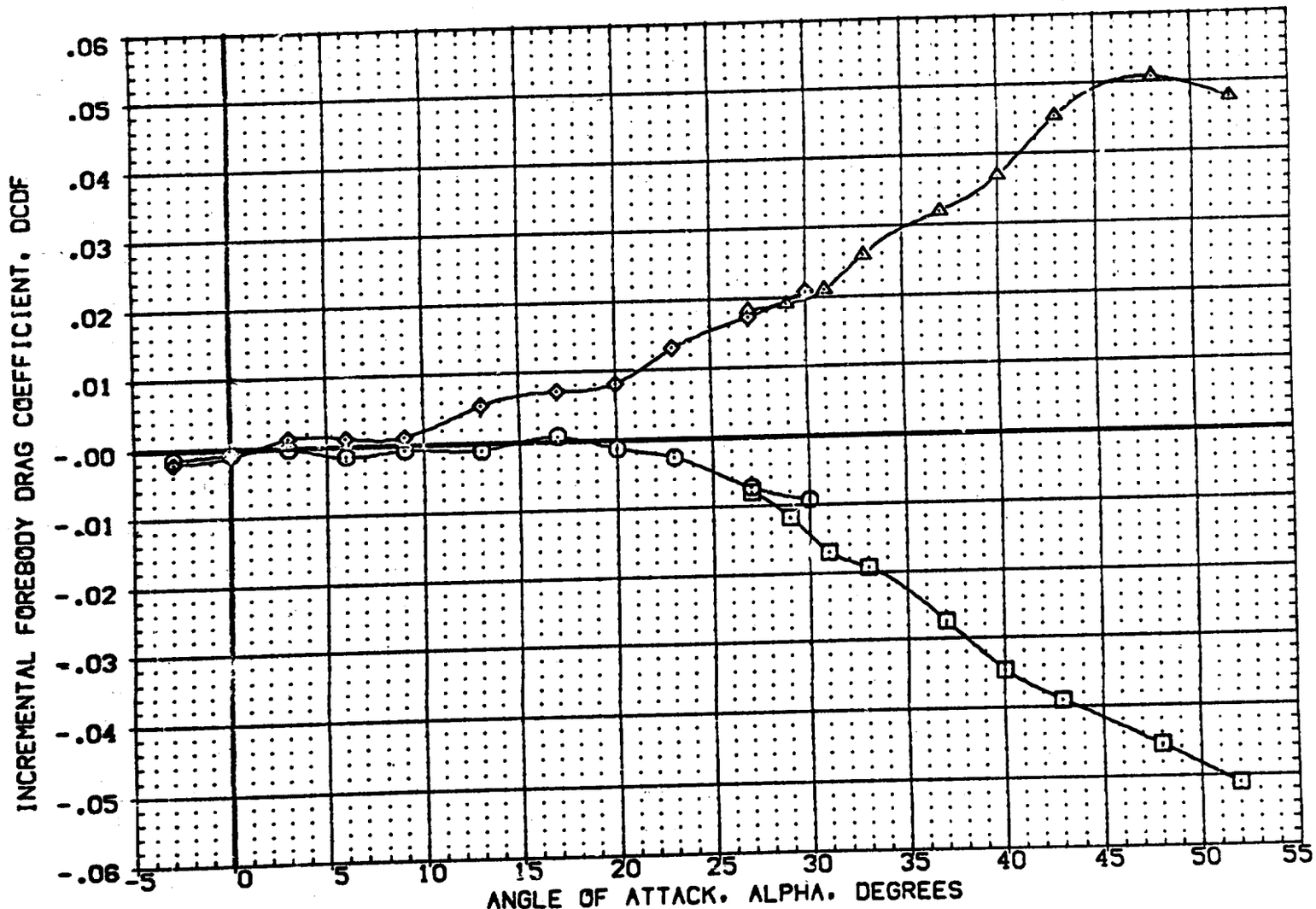


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBY018)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY016)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY030)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(SBY028)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

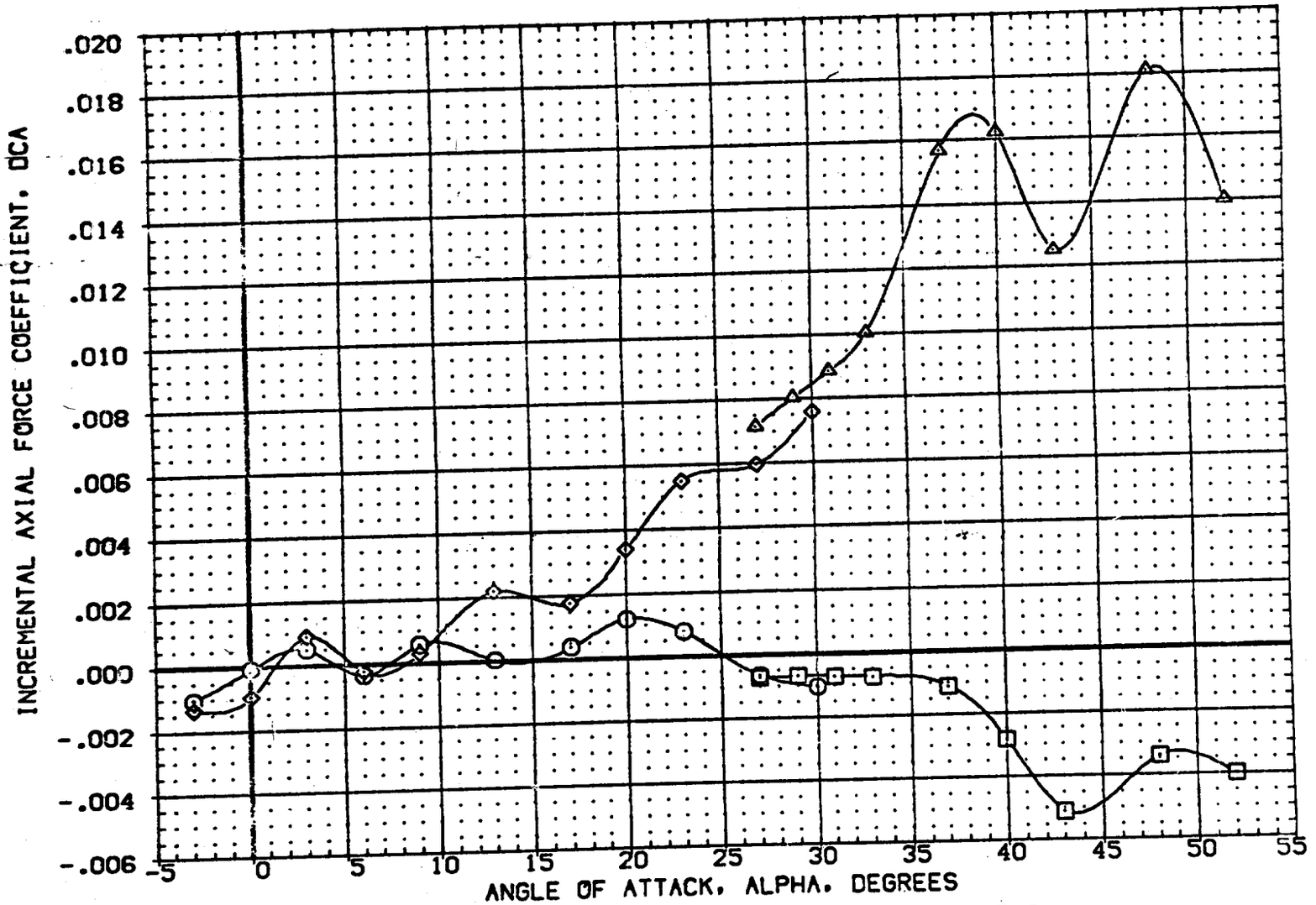


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBYD18) ○	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYD16) □	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(SBYC30) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	13.750	54.920
(SBYC28) △	AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

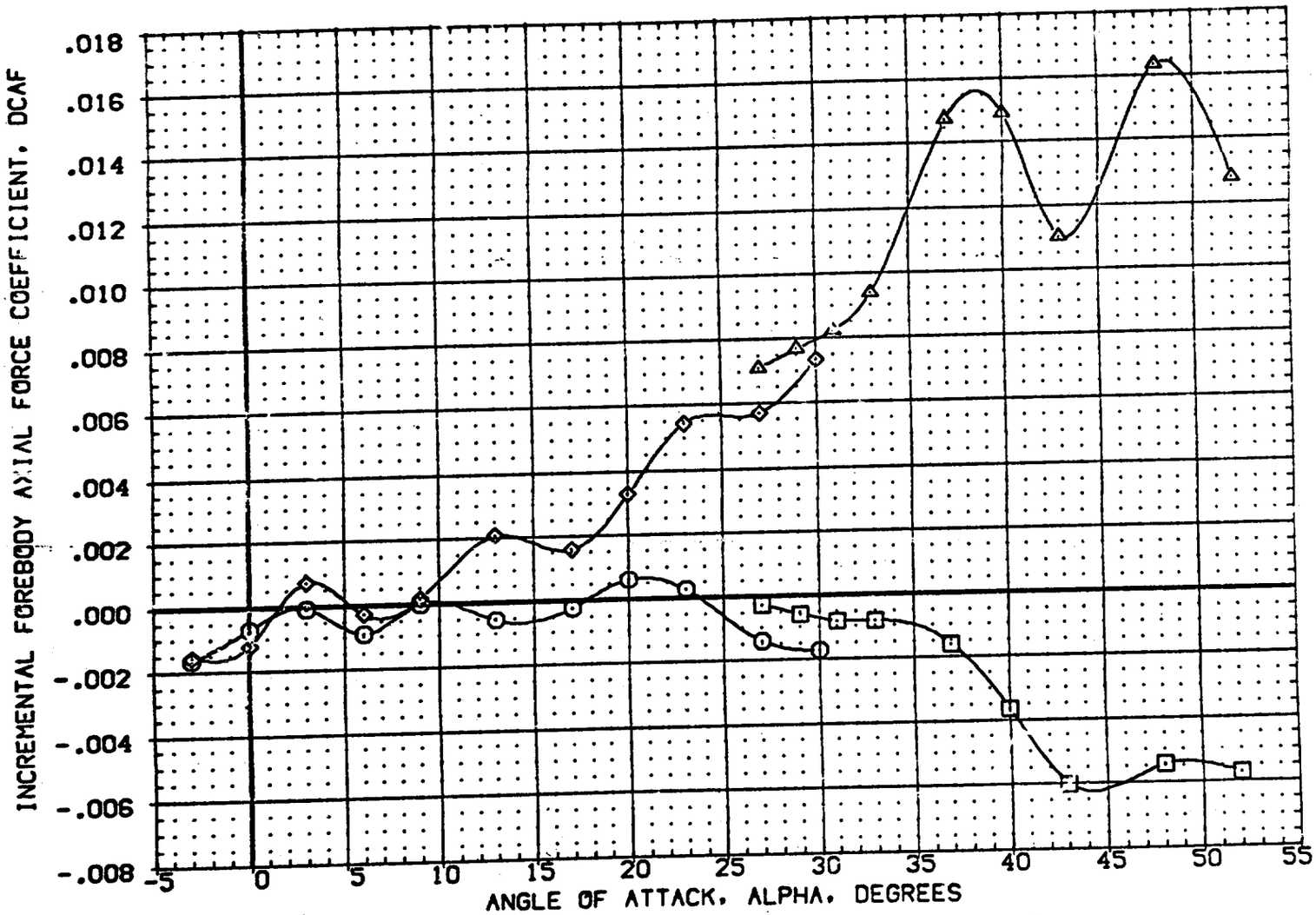


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY018)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY016)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY030)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(SBY028)	△	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

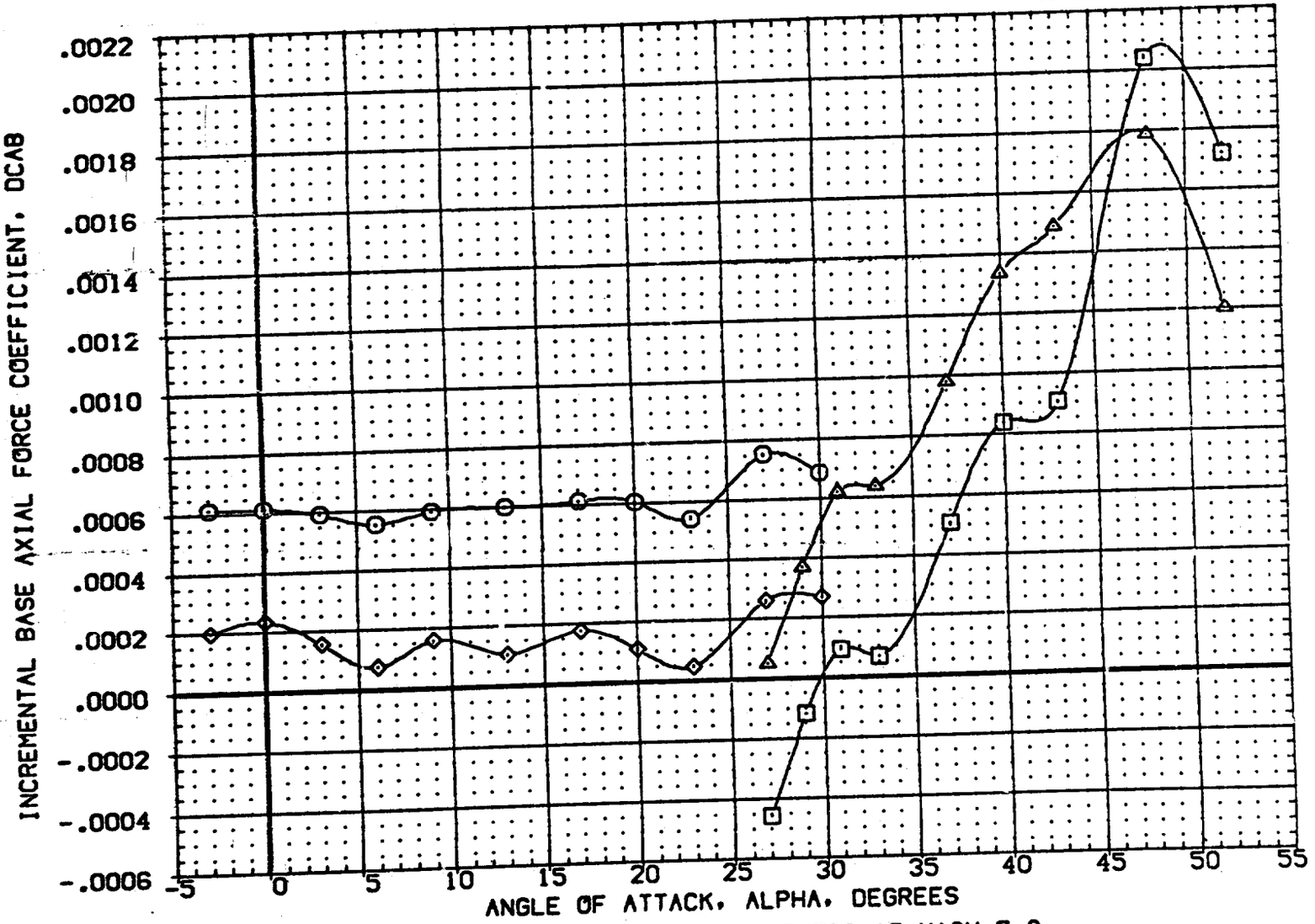


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

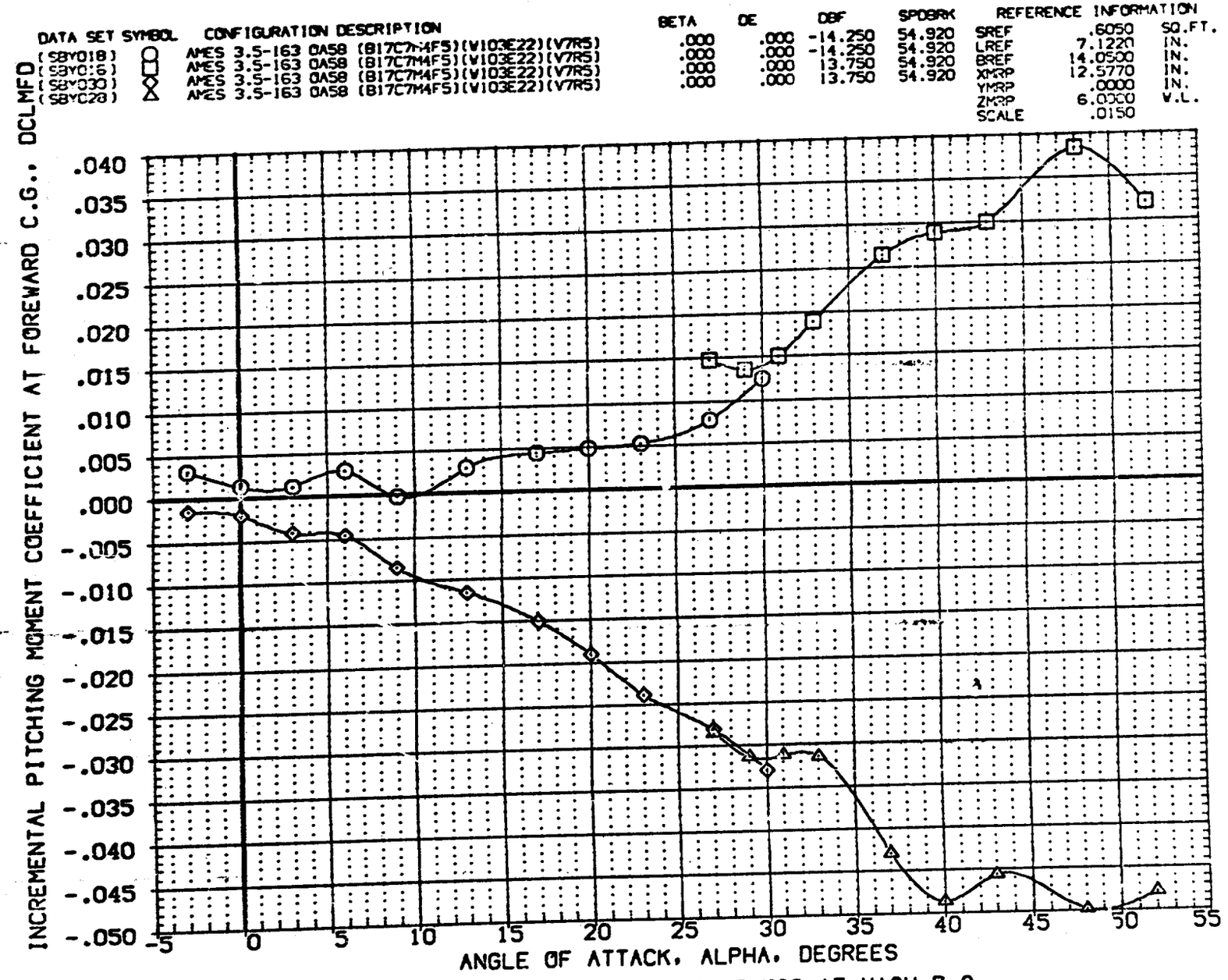


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY018) ○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY016) □	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY030) ◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920
(SBY028) △	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

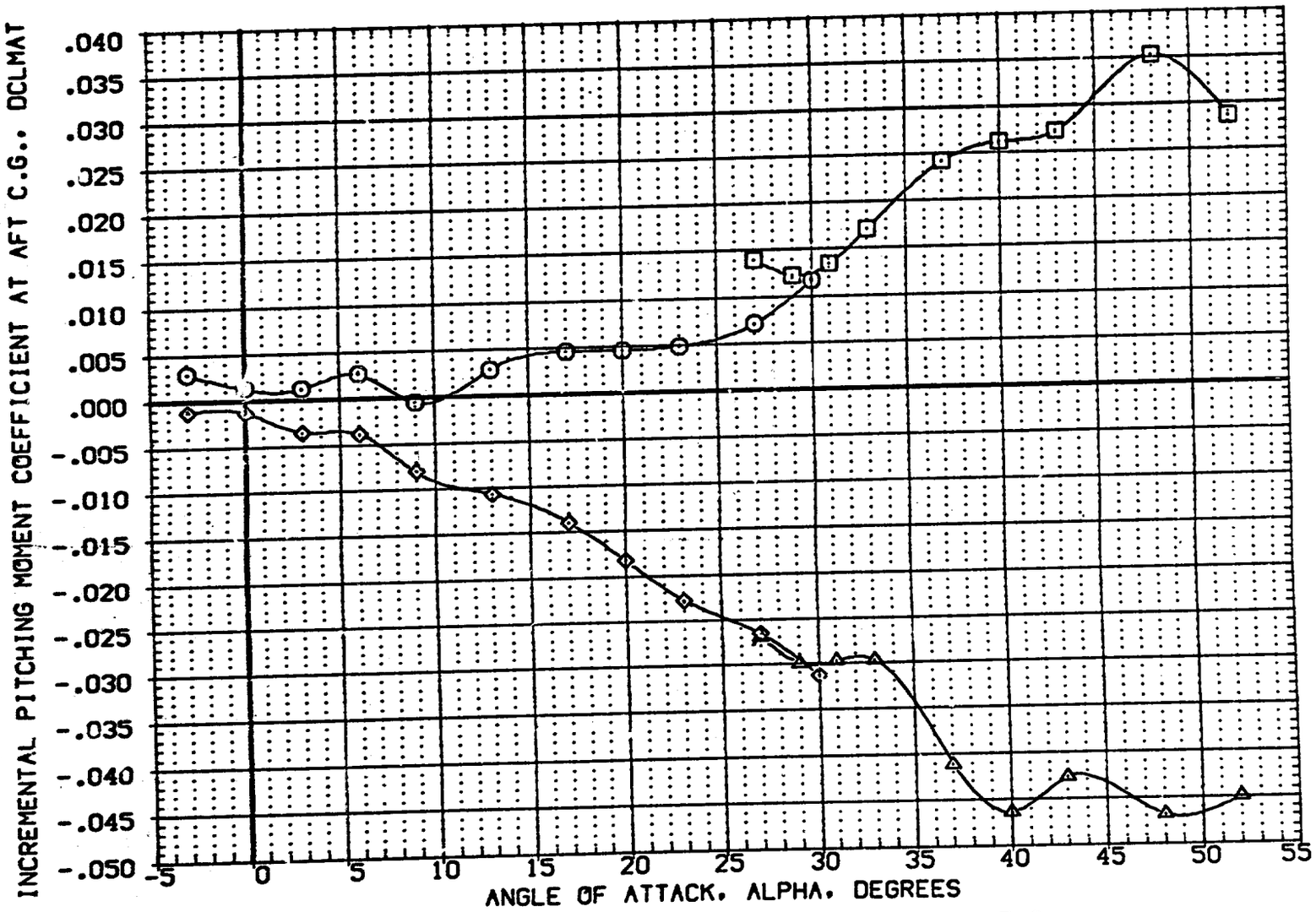


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

(A)MACH = 7.30

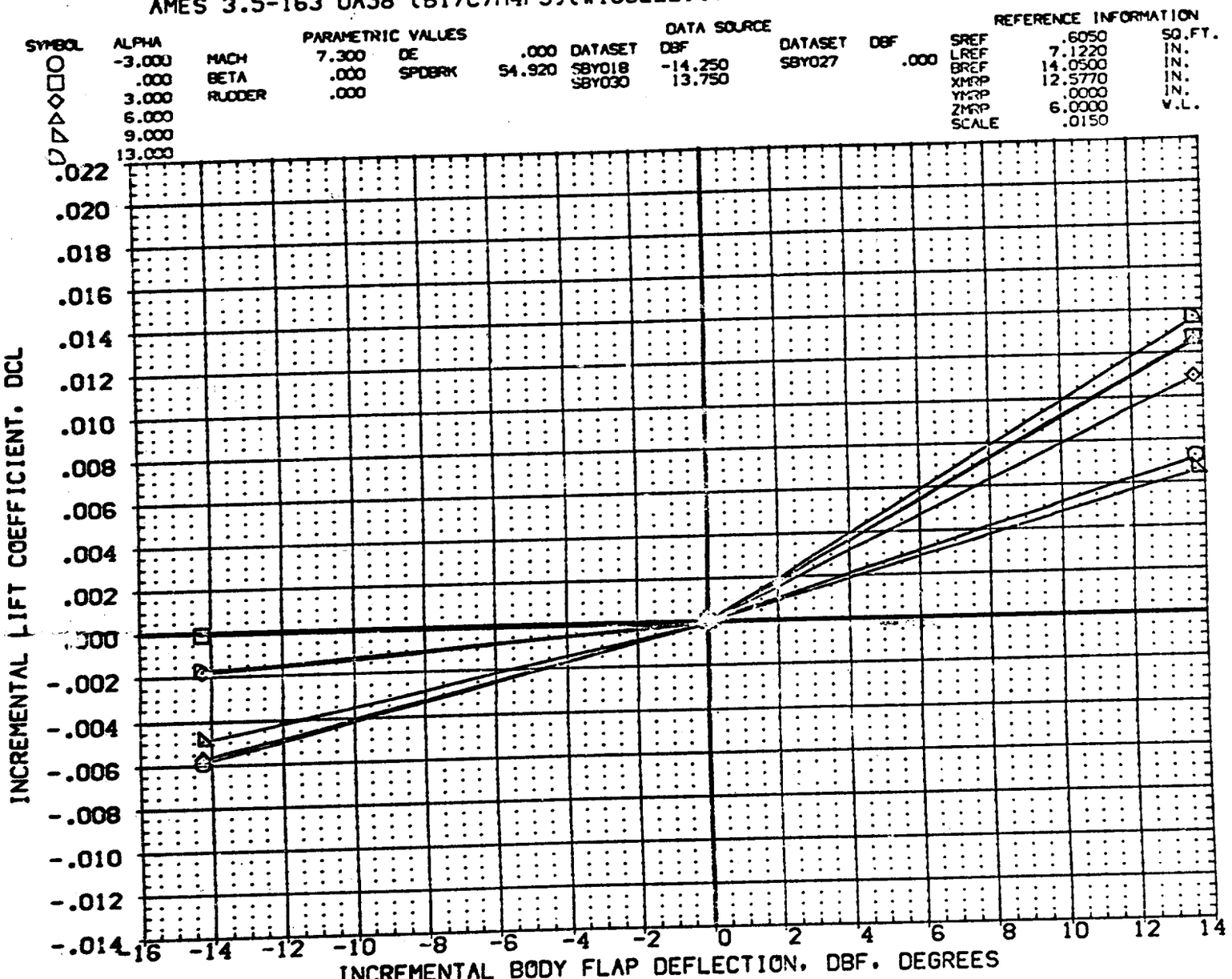


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

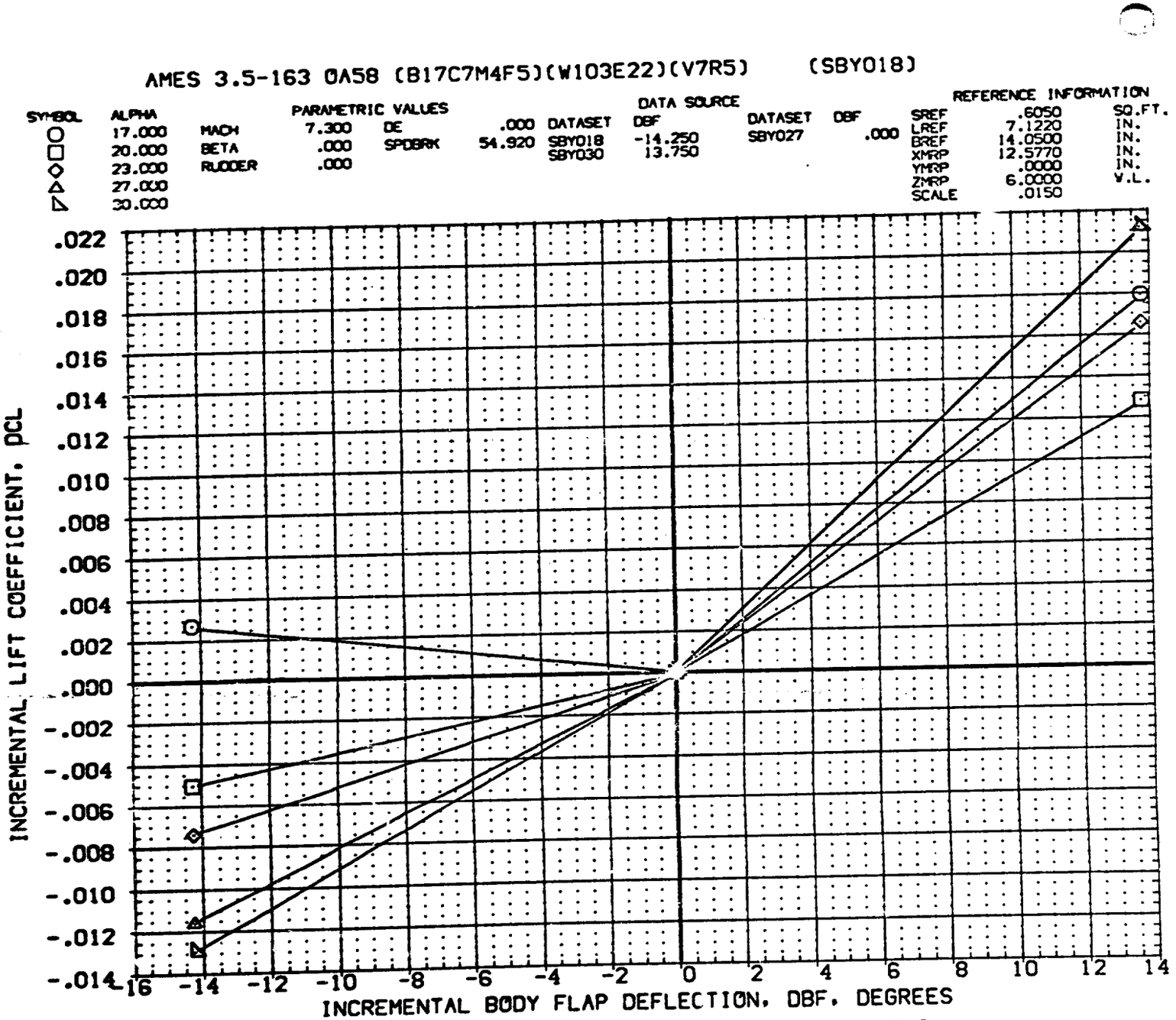


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

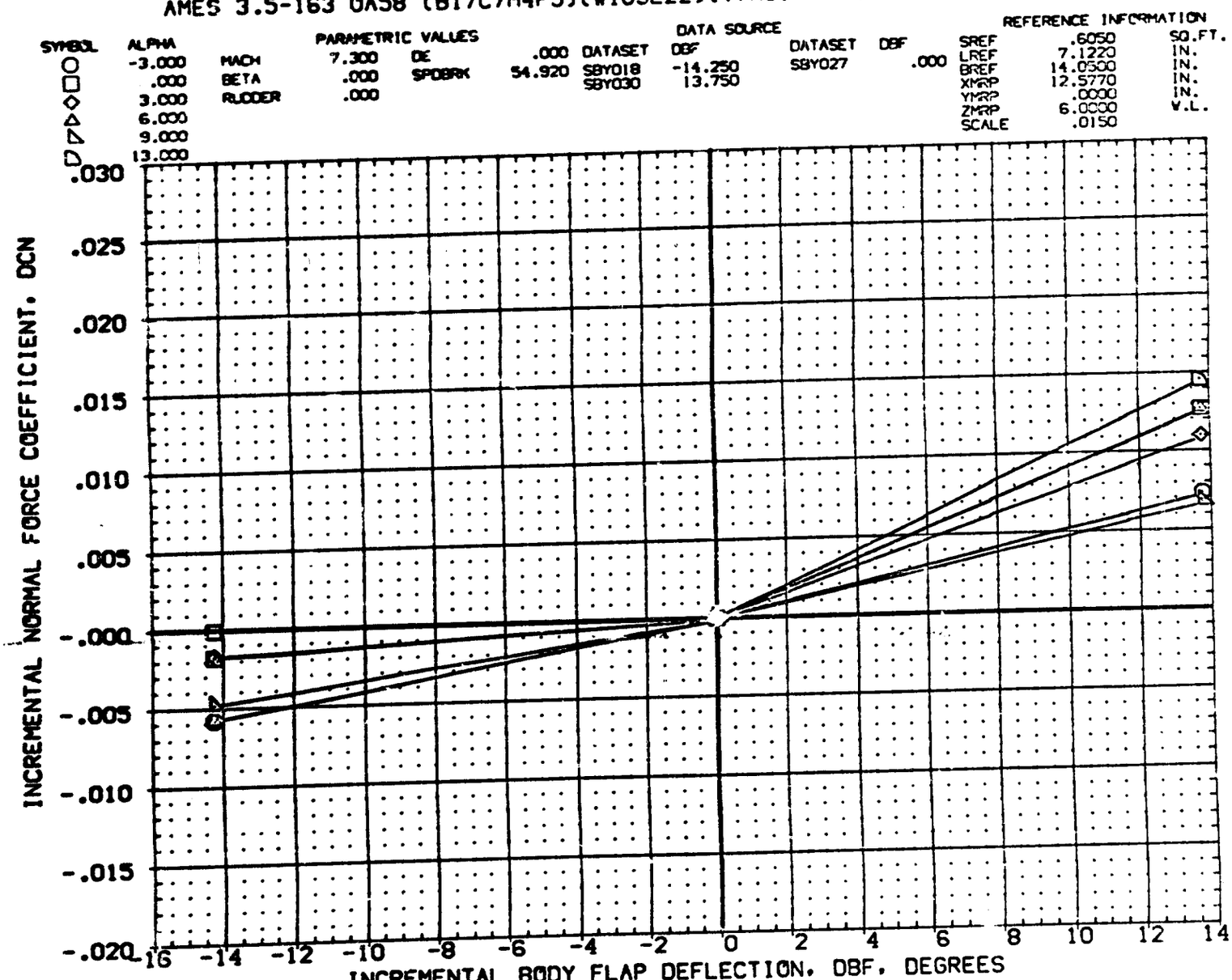


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

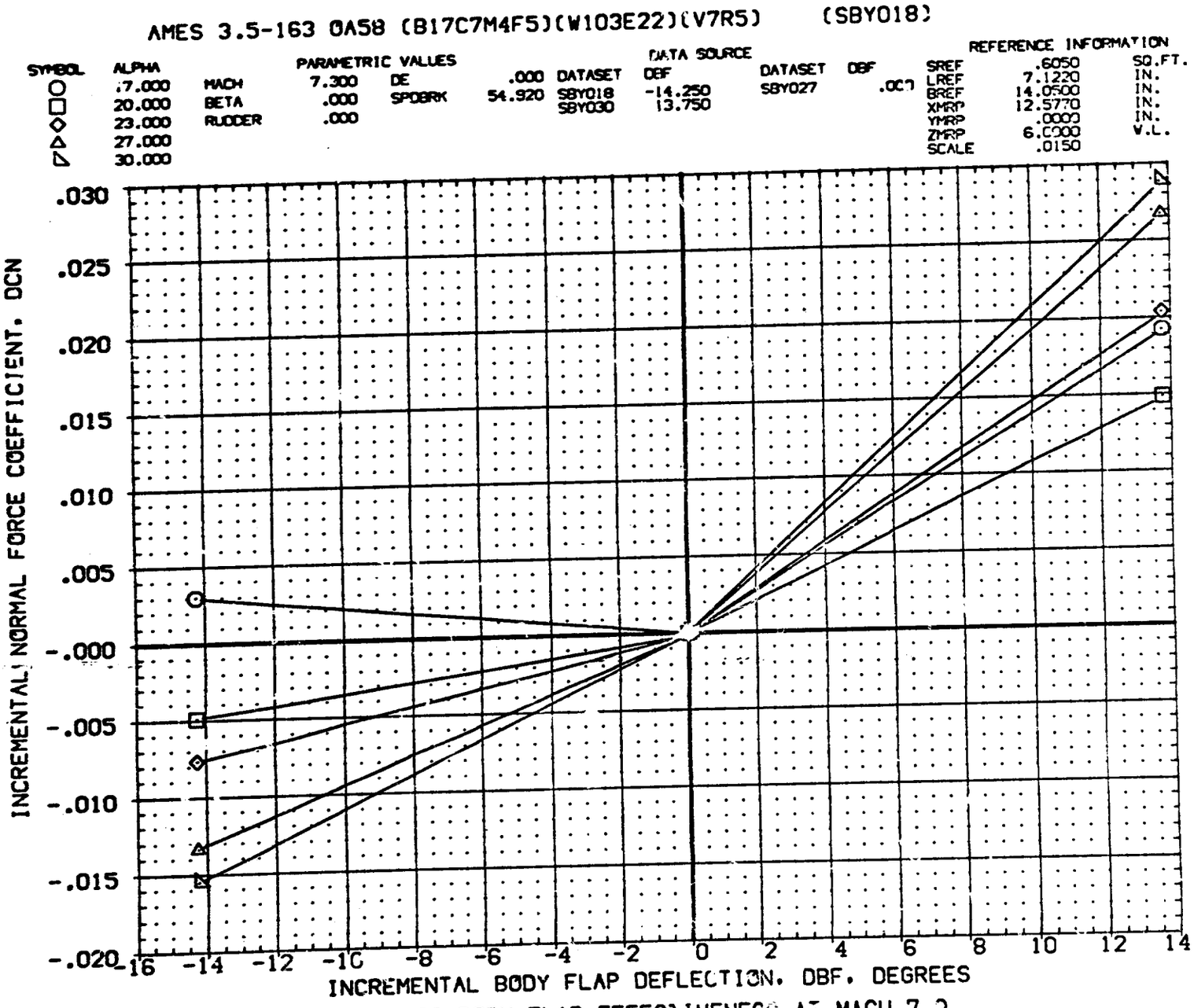


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

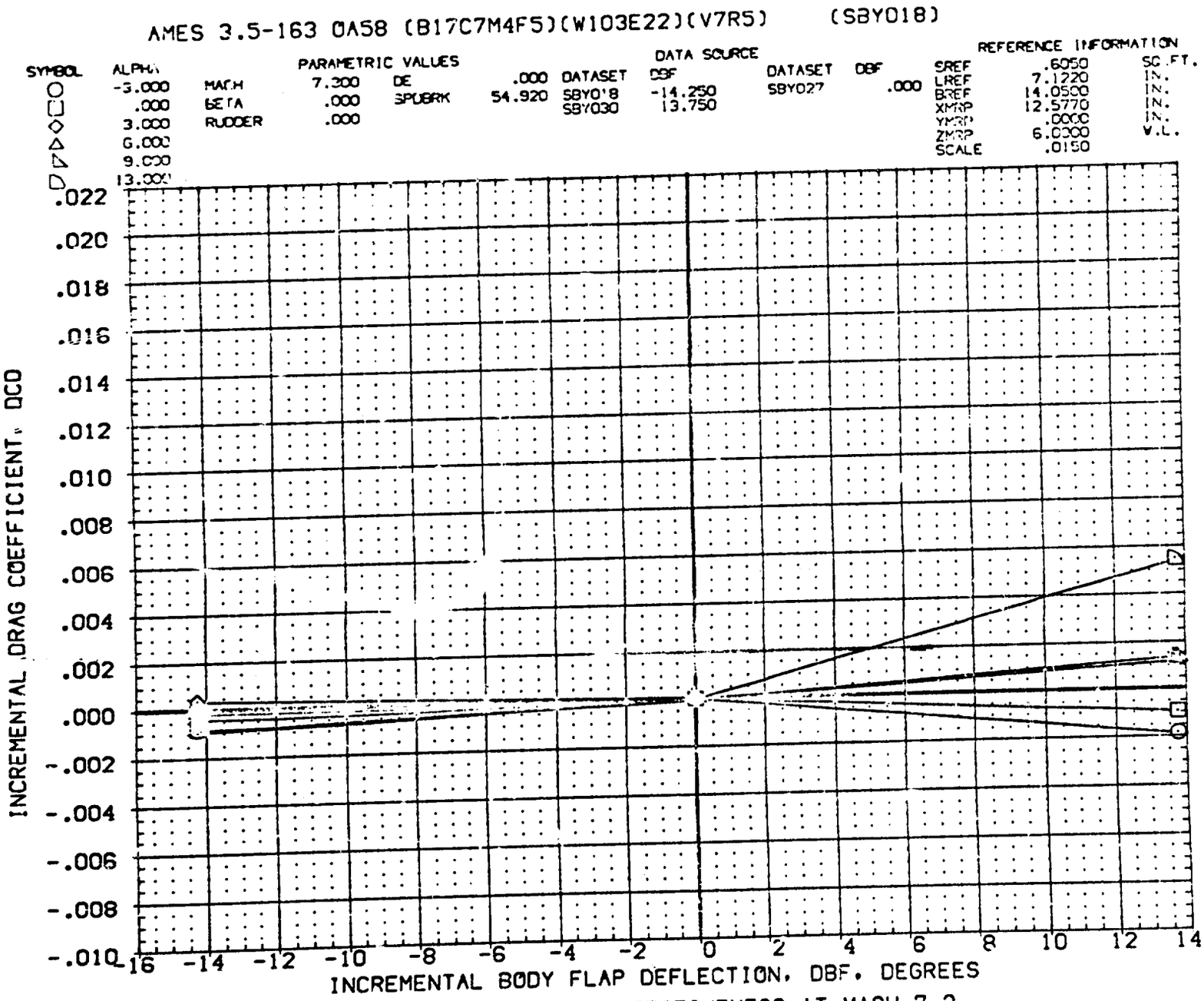


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

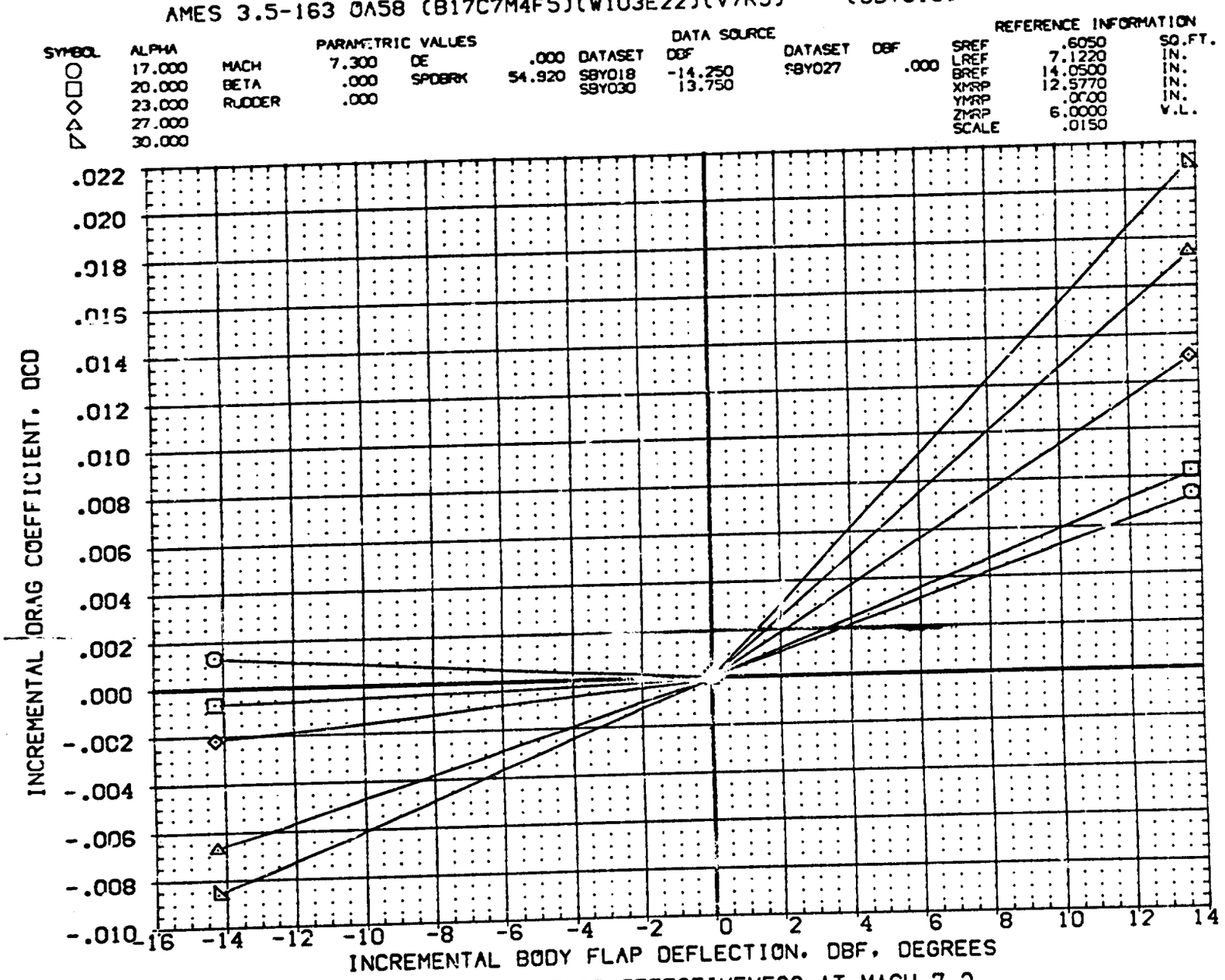


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

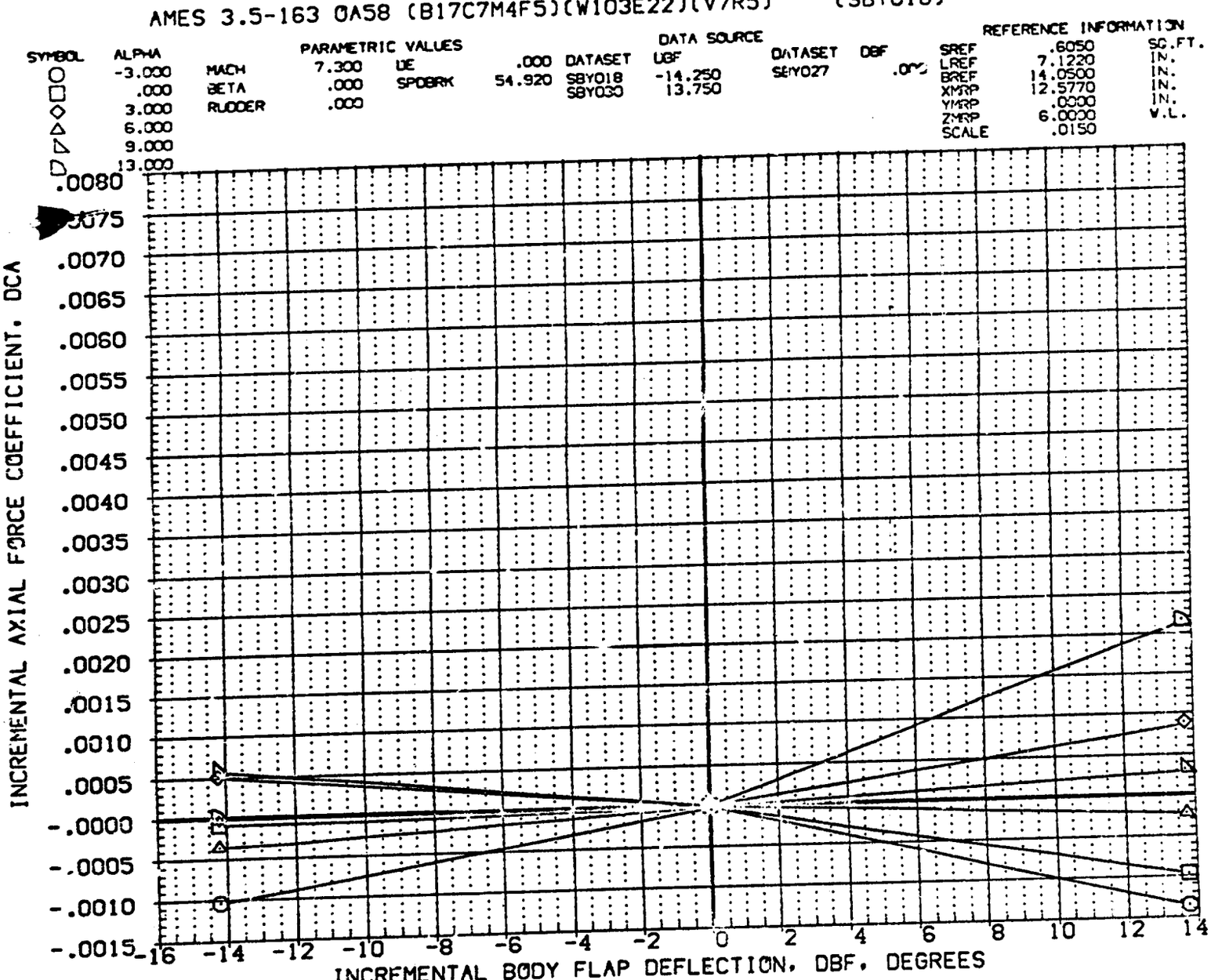


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

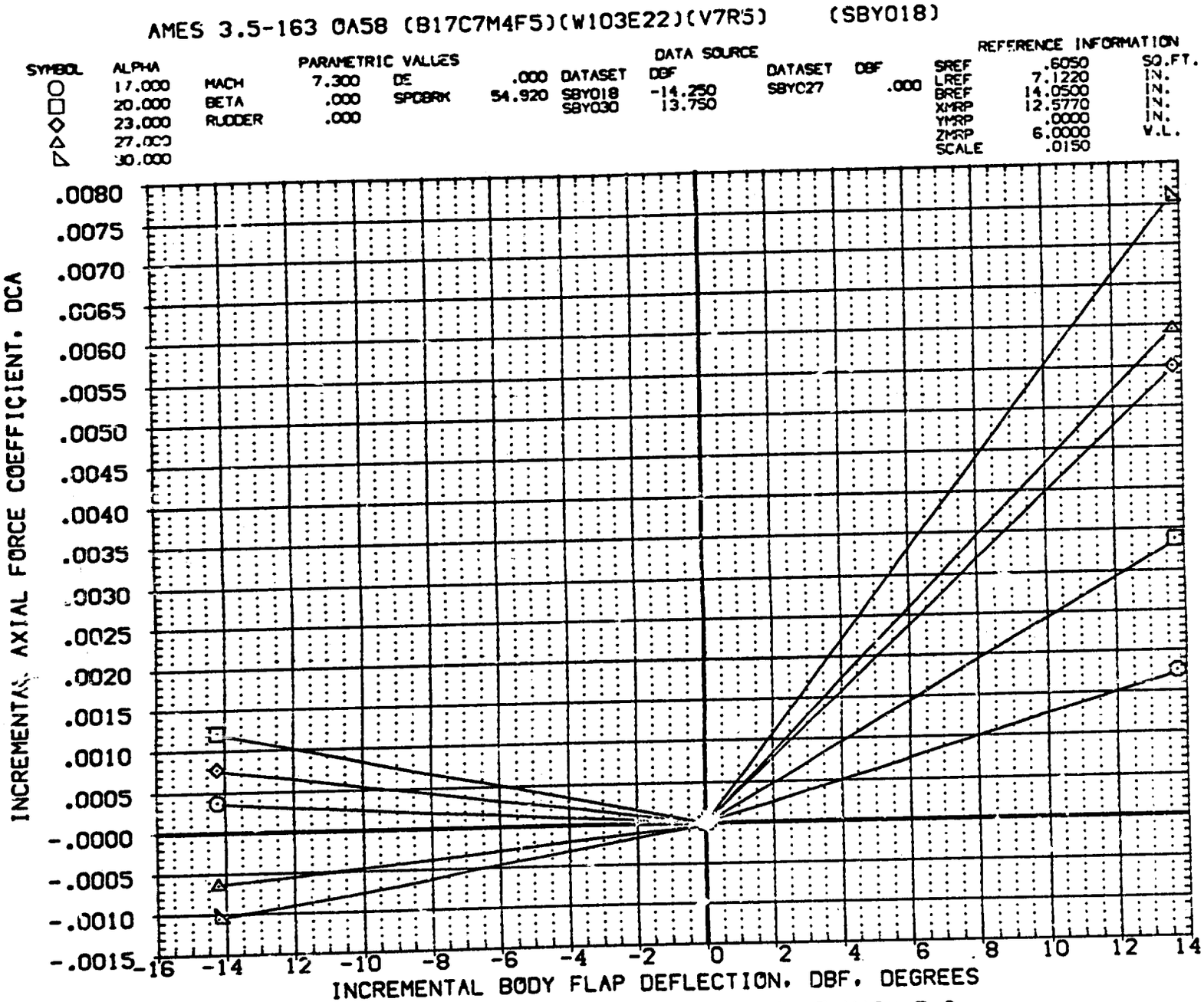


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

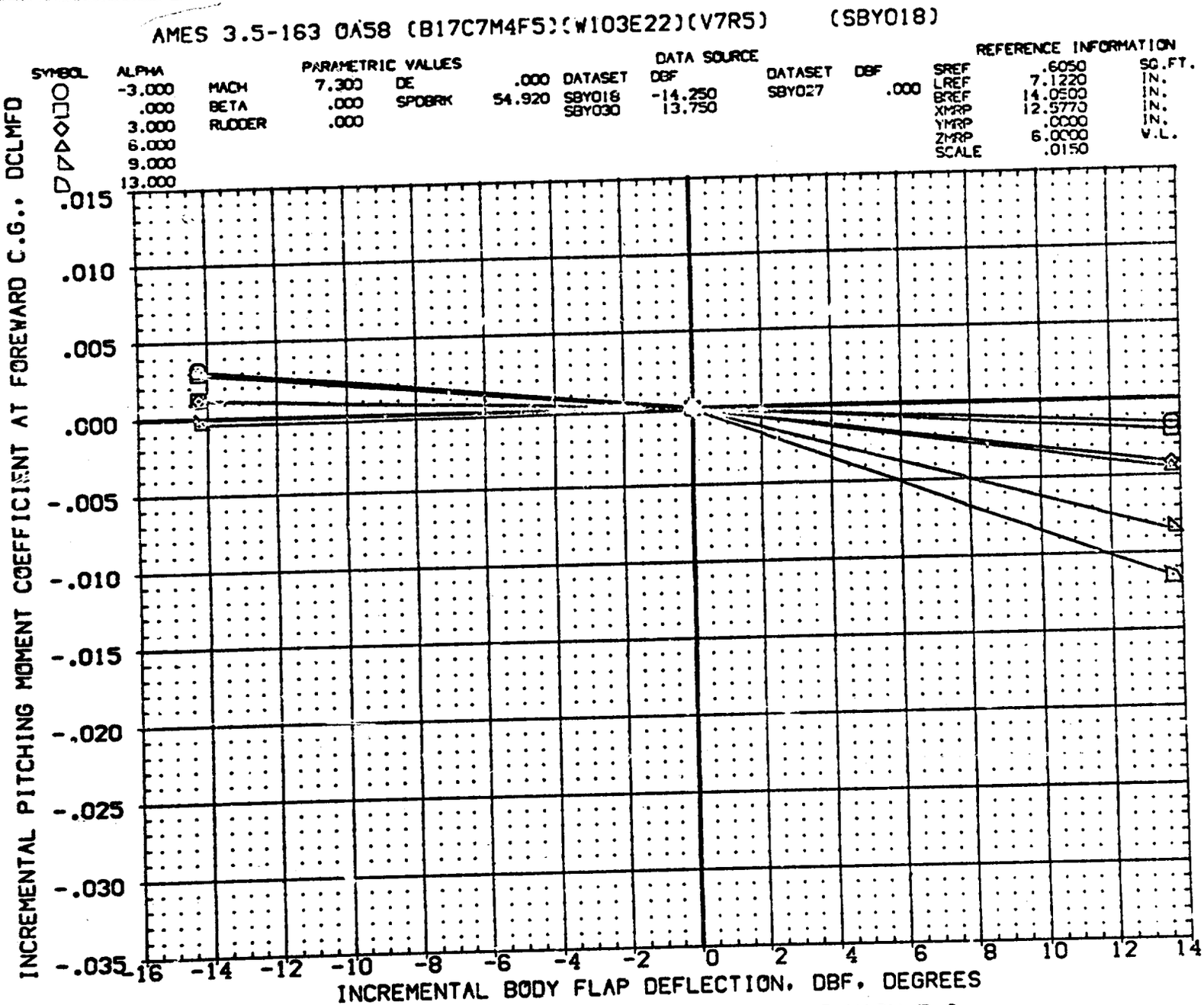


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

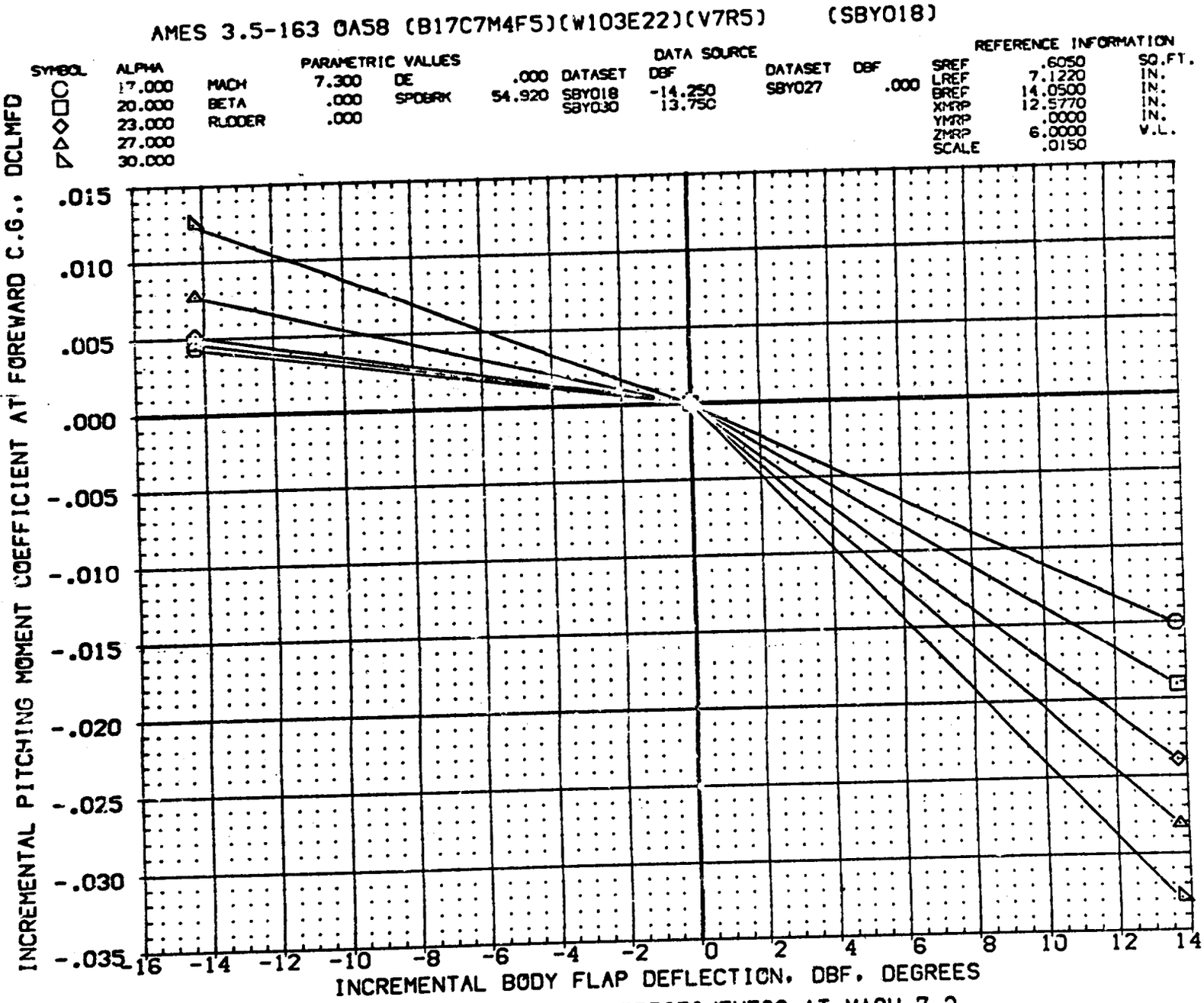


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

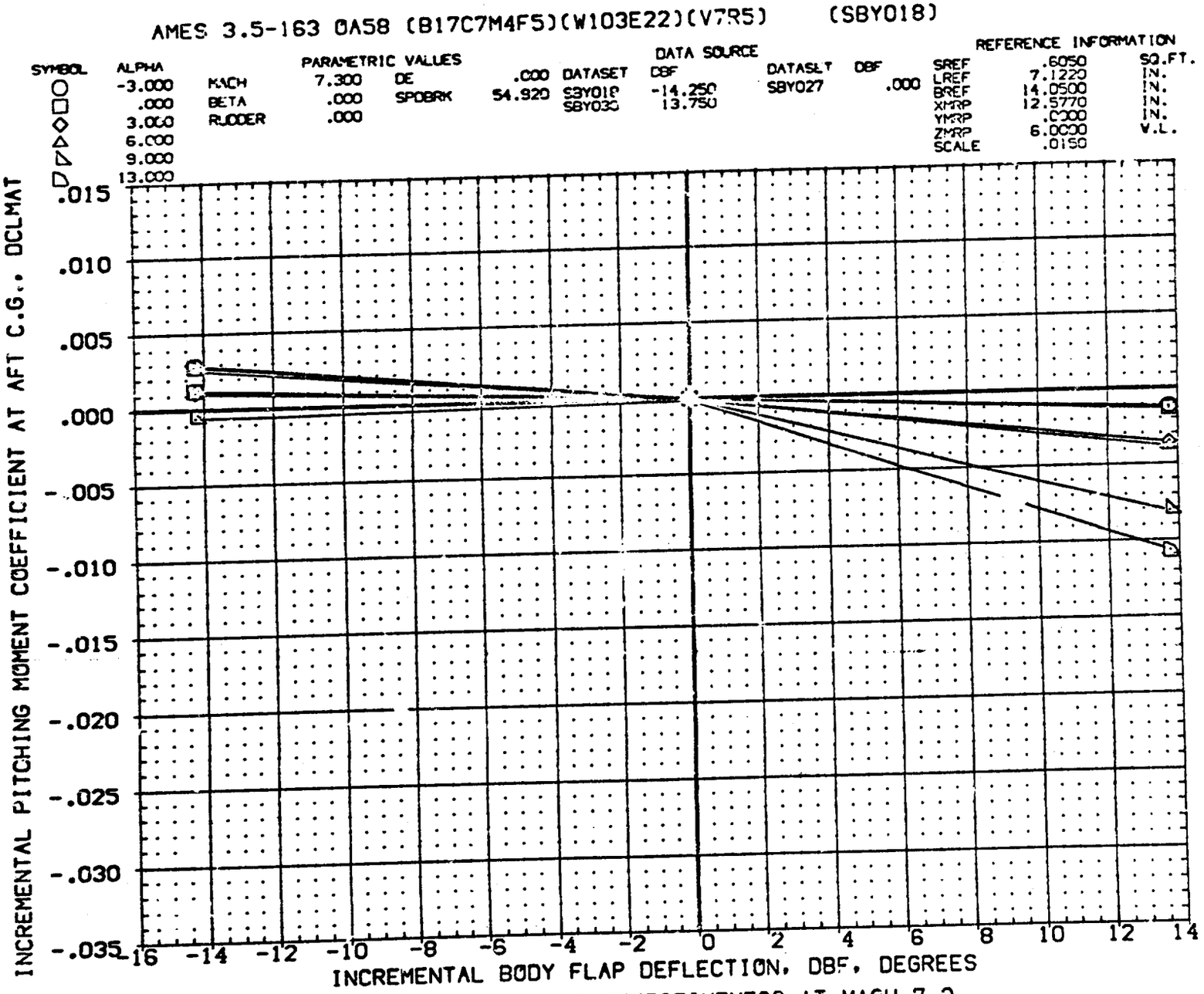


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

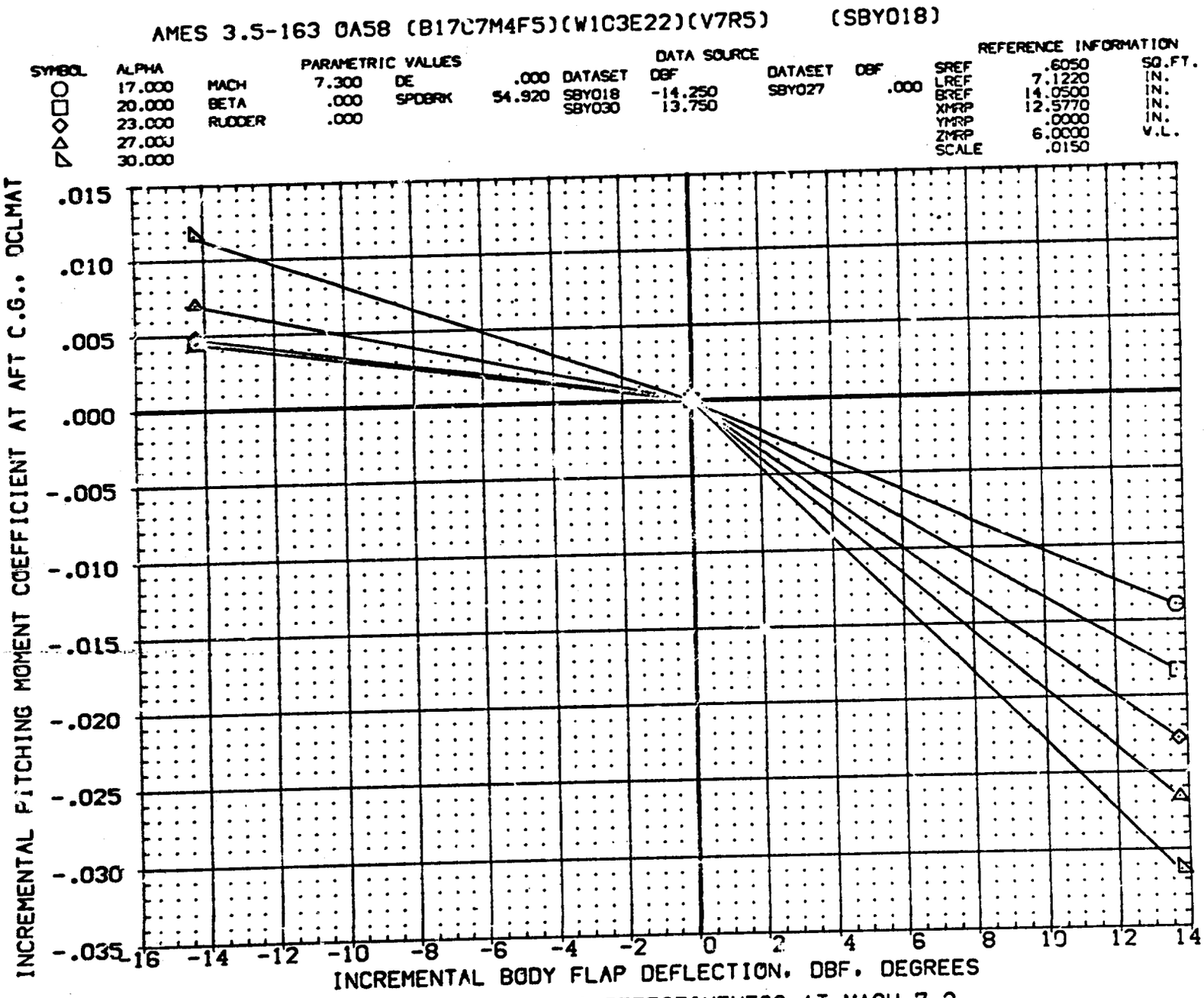


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

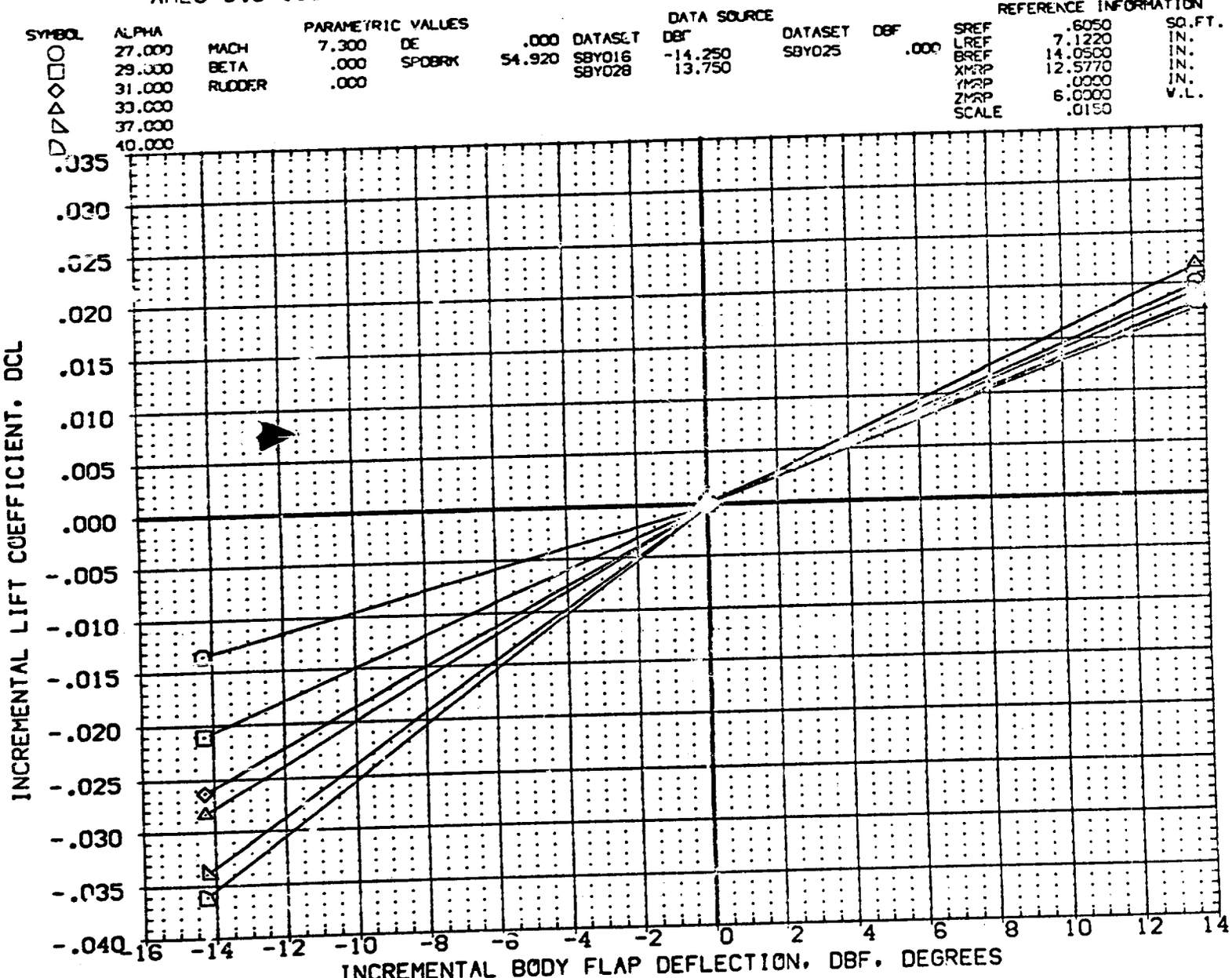


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	7.300	DE	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	48.000	BETA	.000	SPOBRK	54.920	SBY016	-14.250	SBY025	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			SBY028	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

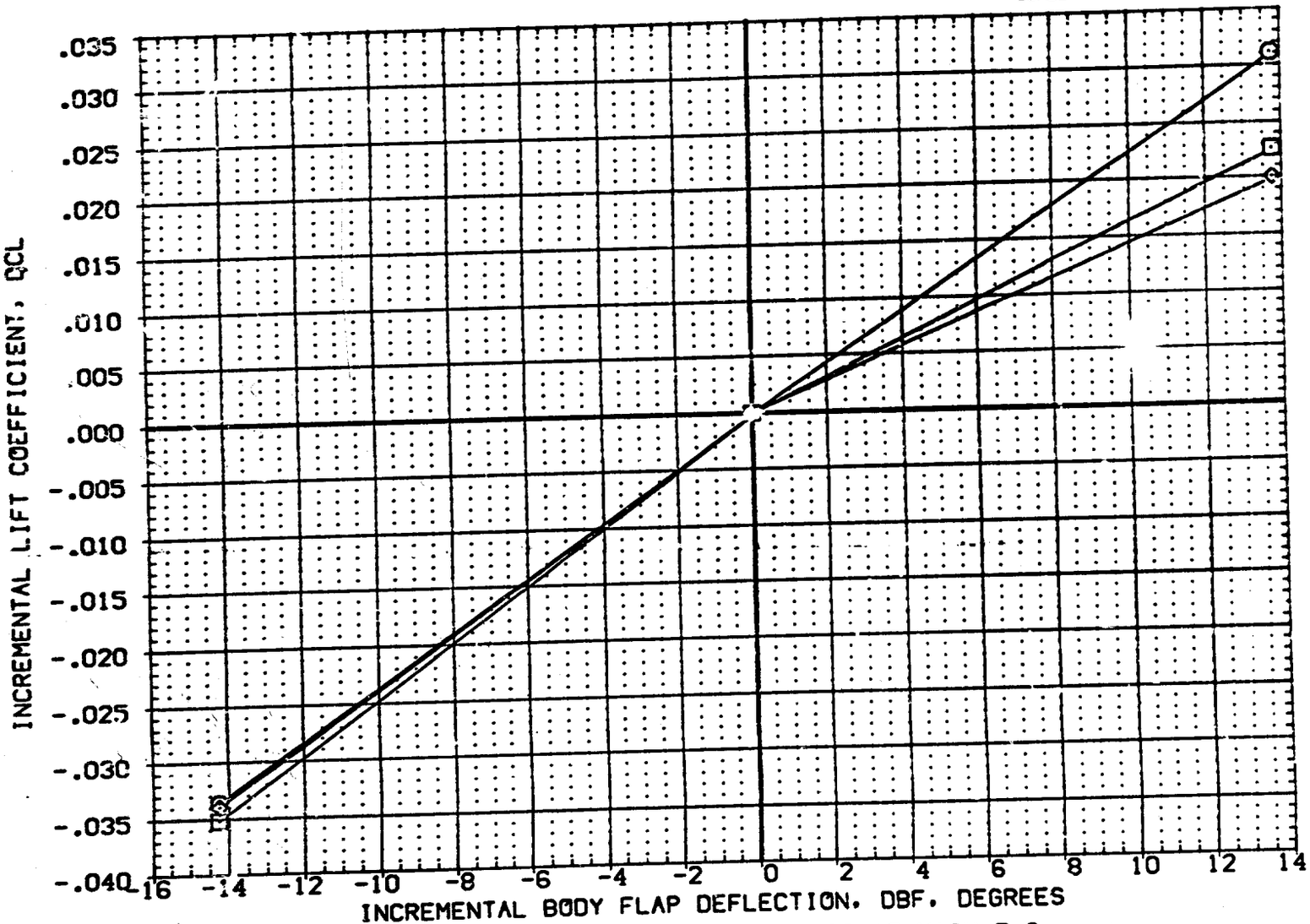


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

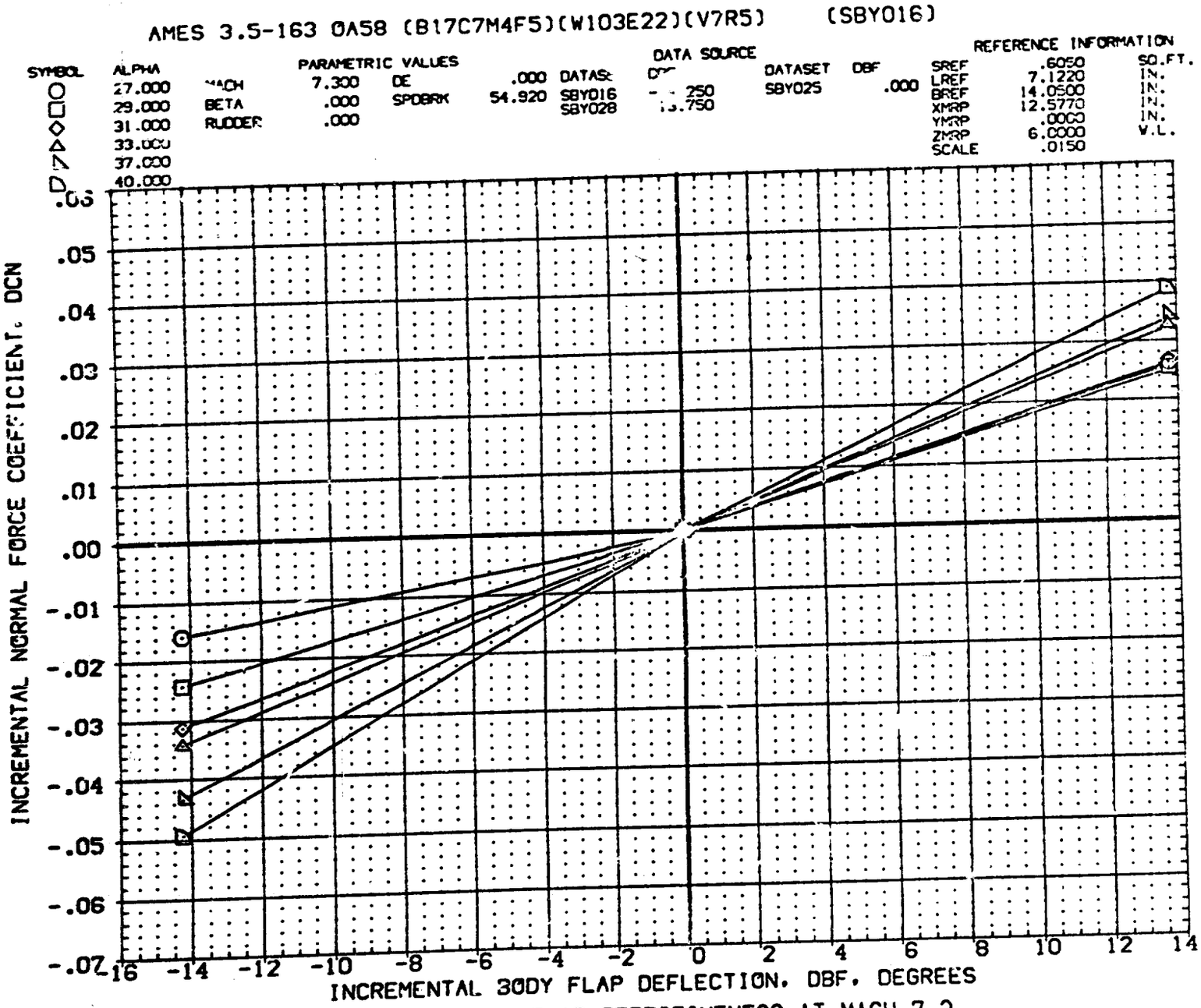


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	7.300	DE	.000	DATASET	CGF	DATASET	DBF	SREF	.6050	SQ.FT.
□	48.000	BETA	.000	SPDBRK	54.920	SBY016	-14.250	SBY025	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			SBY028	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

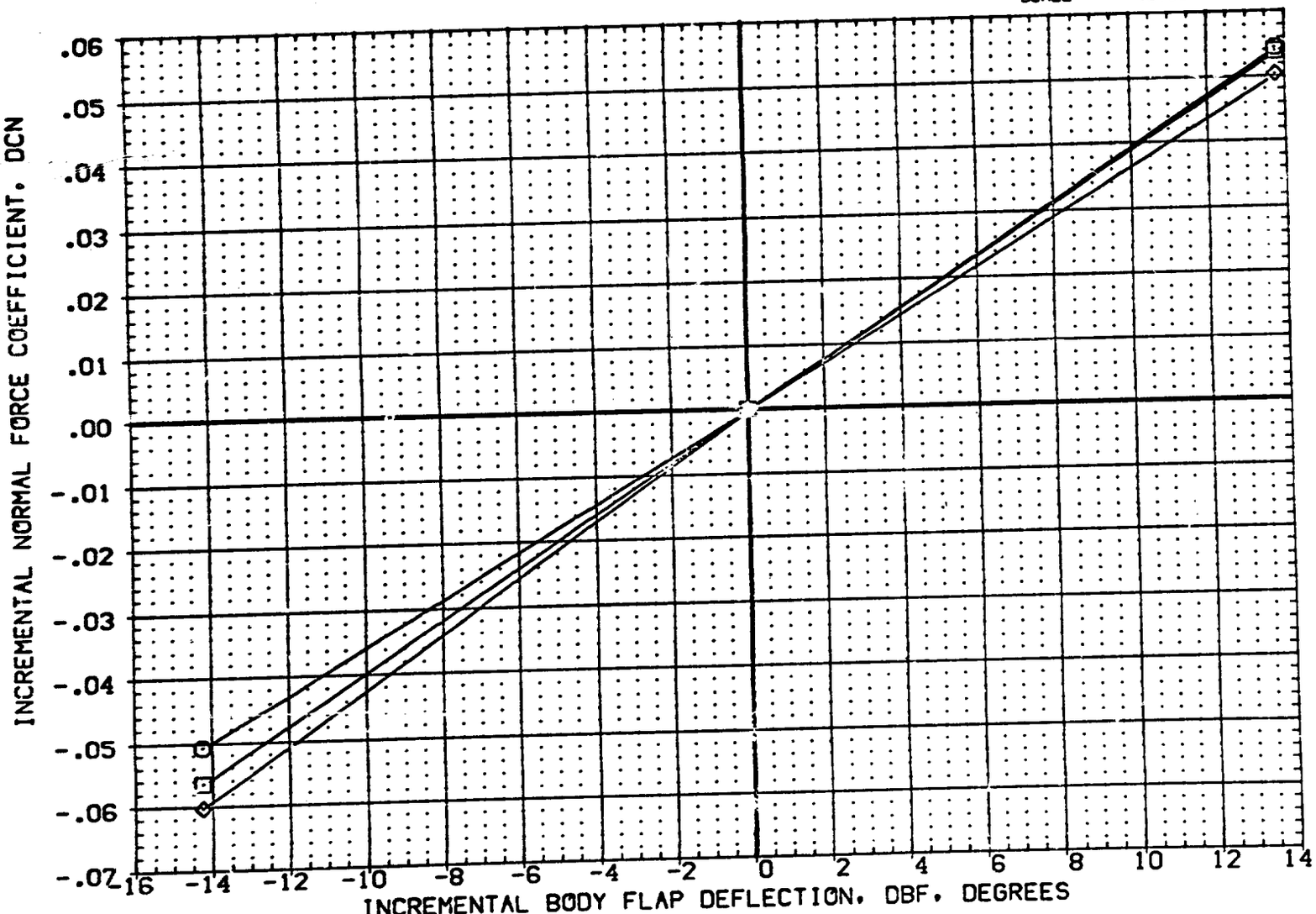


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

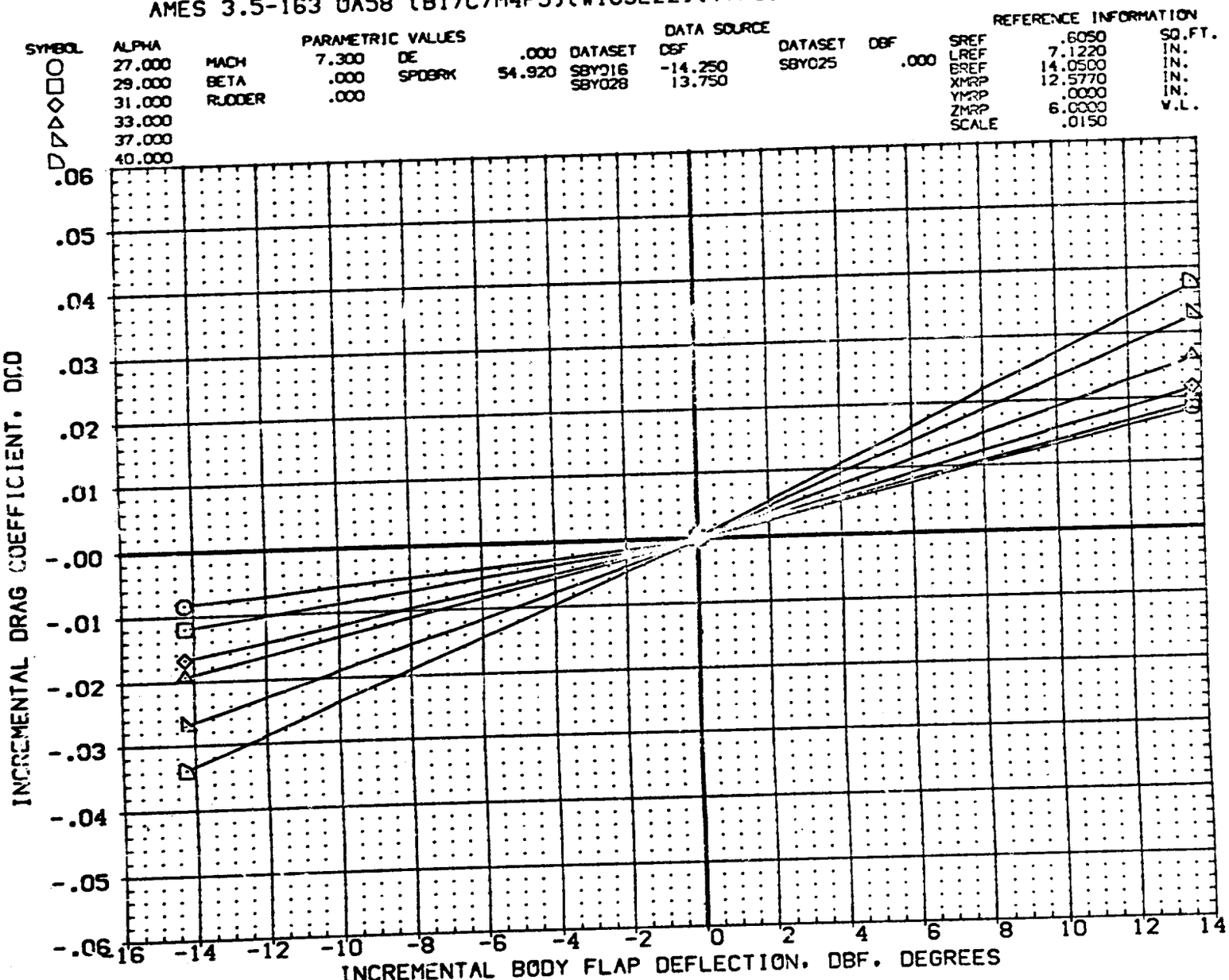


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	7.300	DE	.000	DATASET	DBF	DATASET	DBF	SREF	.6C5C	SQ.FT.
□	48.000	BETA	.000	SPDBRK	54.920	SBY016	-14.250	SBY025	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			SBY028	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

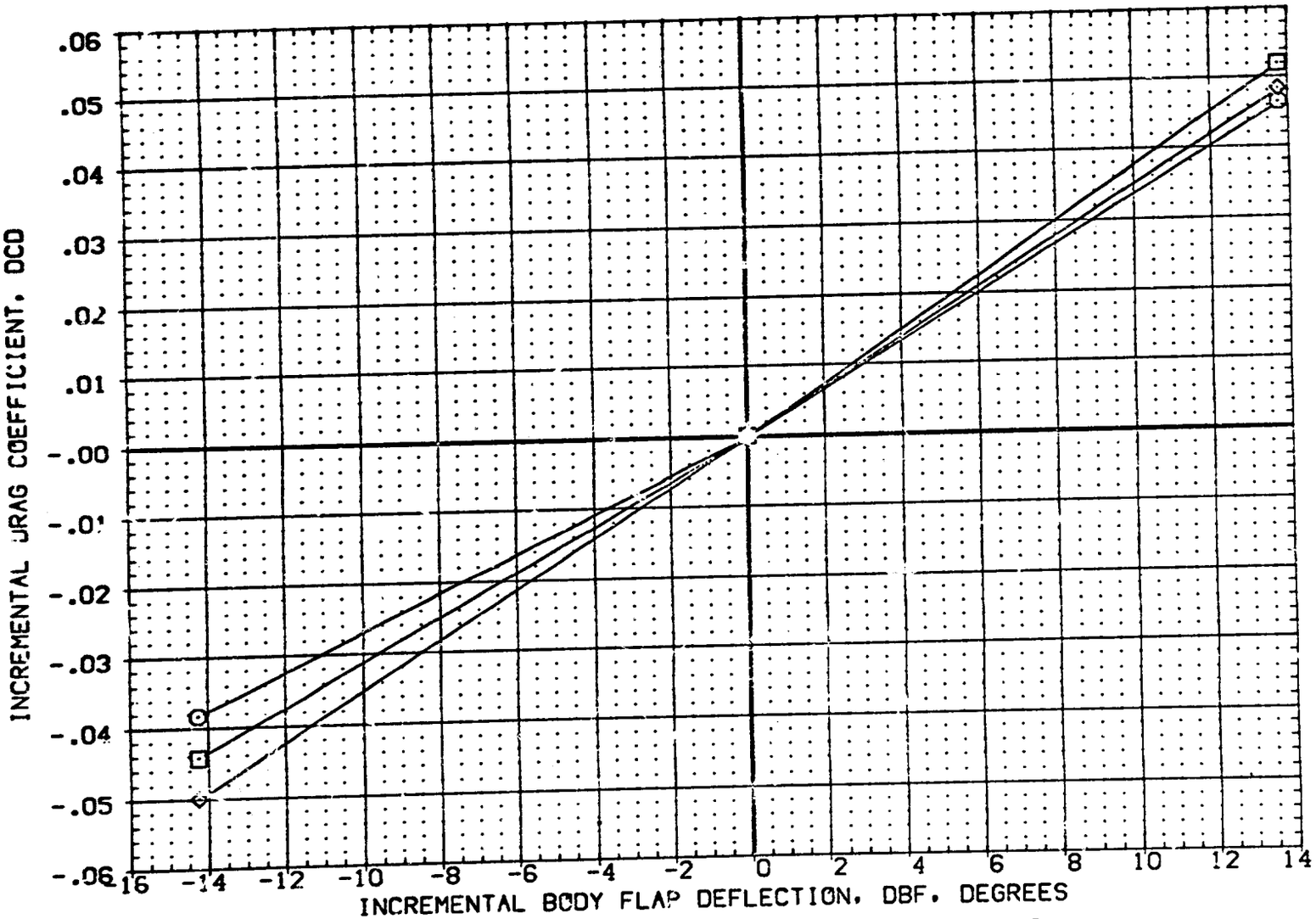


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

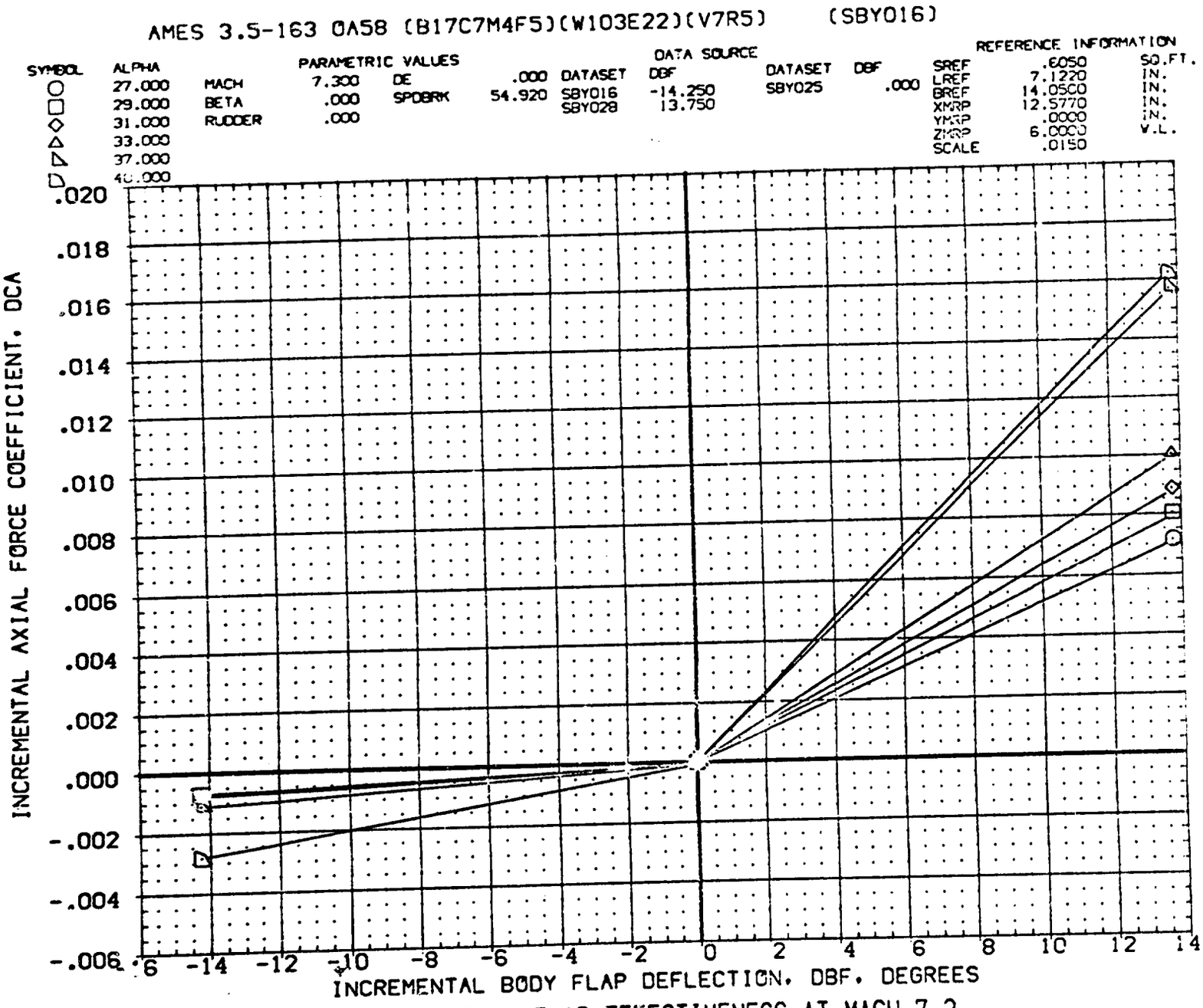


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	43.000	MACH	7.300	DE	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	48.000	BETA	.000	SPDBRK	54.320	SBY016	-14.250	SBY025	.000	LREF	7.1220	IN.
◇	52.000	RUDDER	.000			SBY028	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	W.L.
										SCALE	.0150	

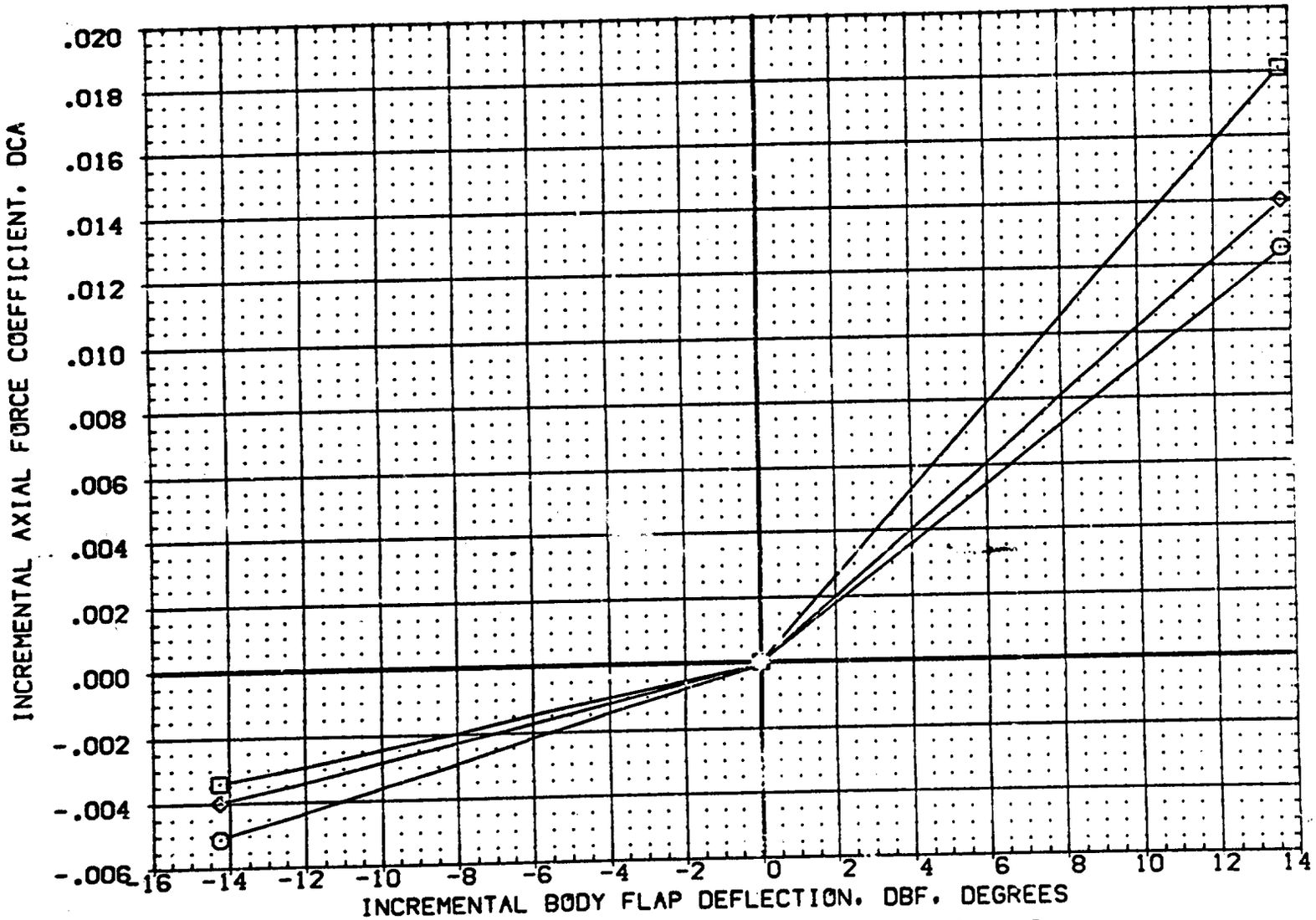


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

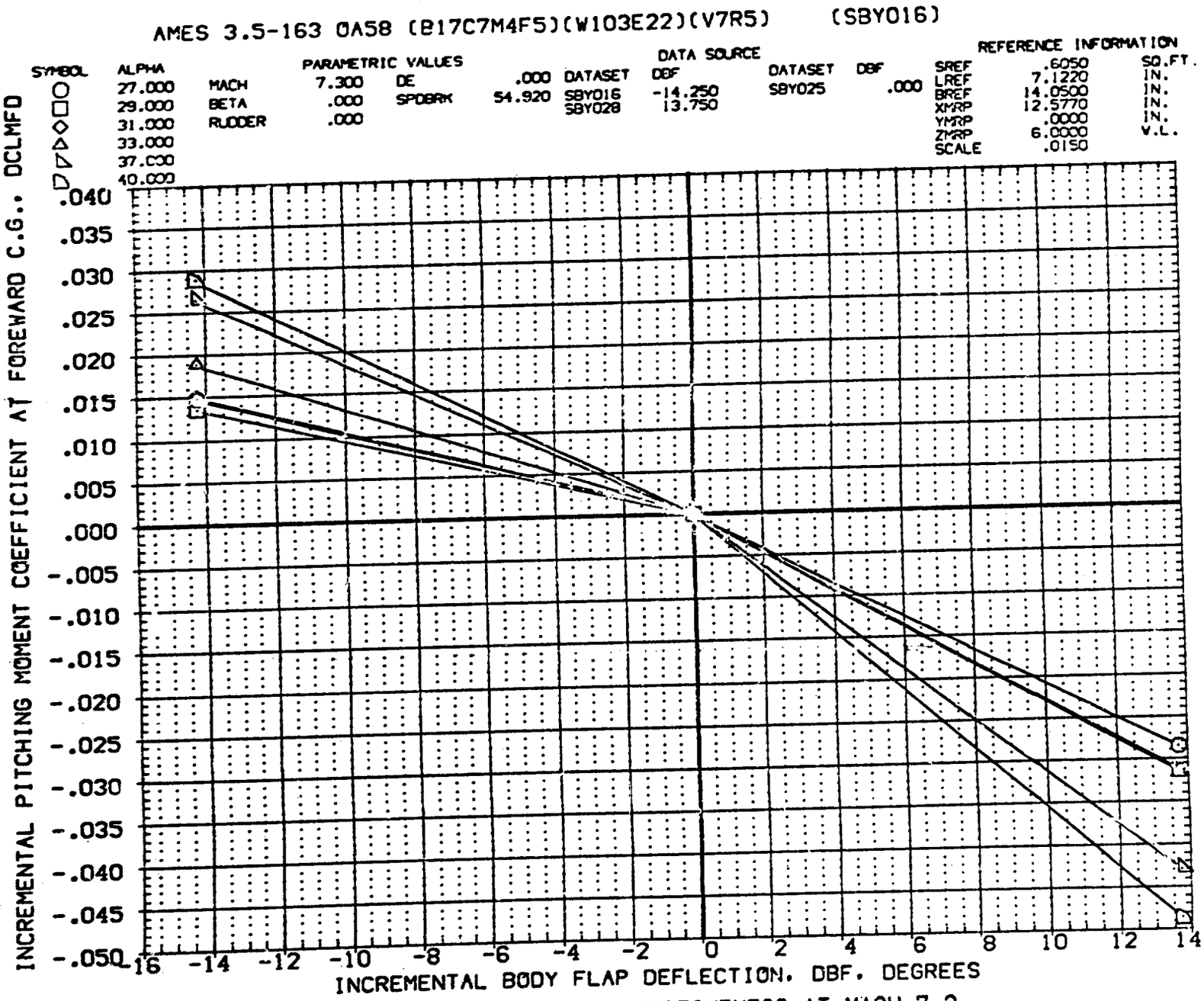


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

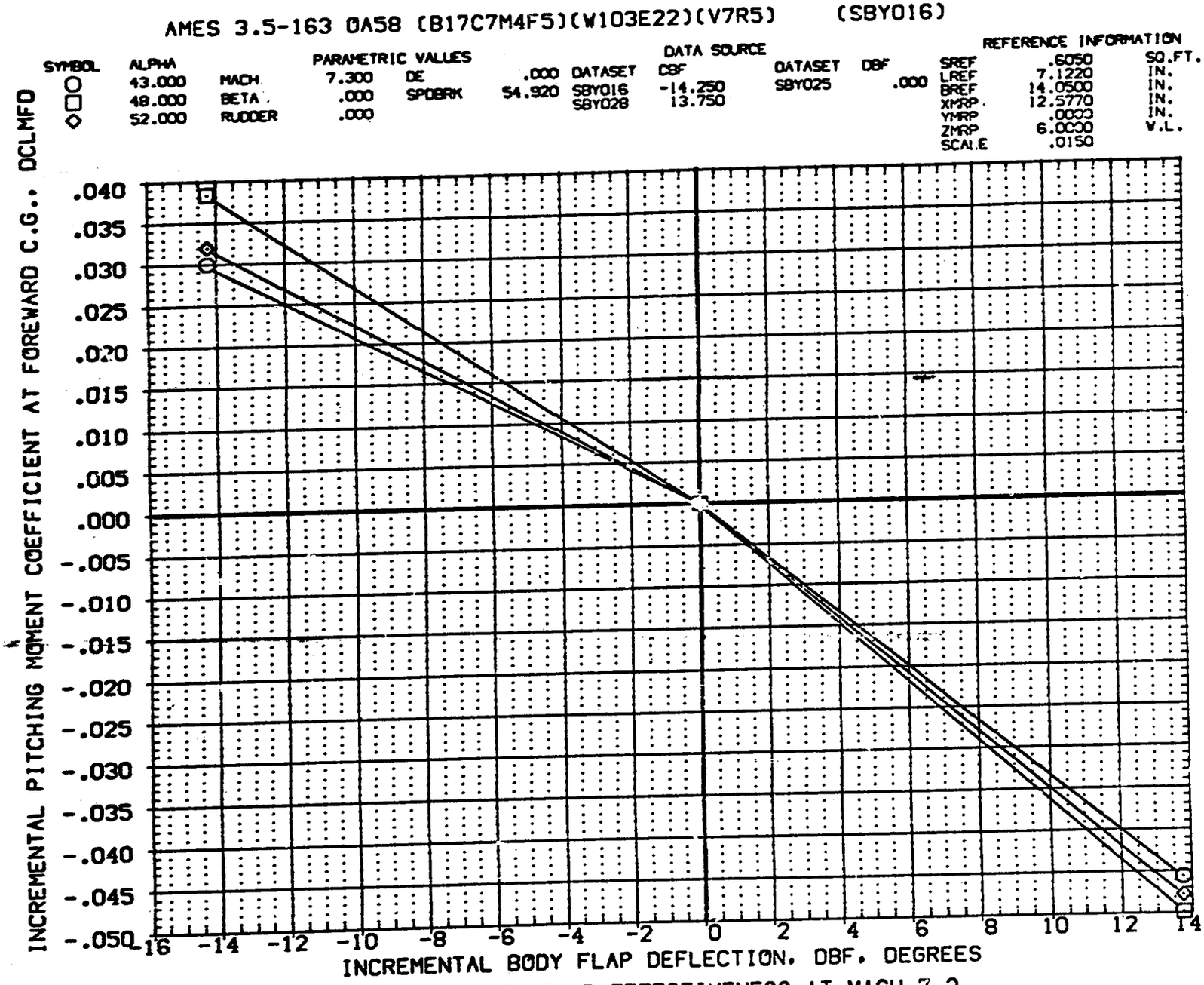


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

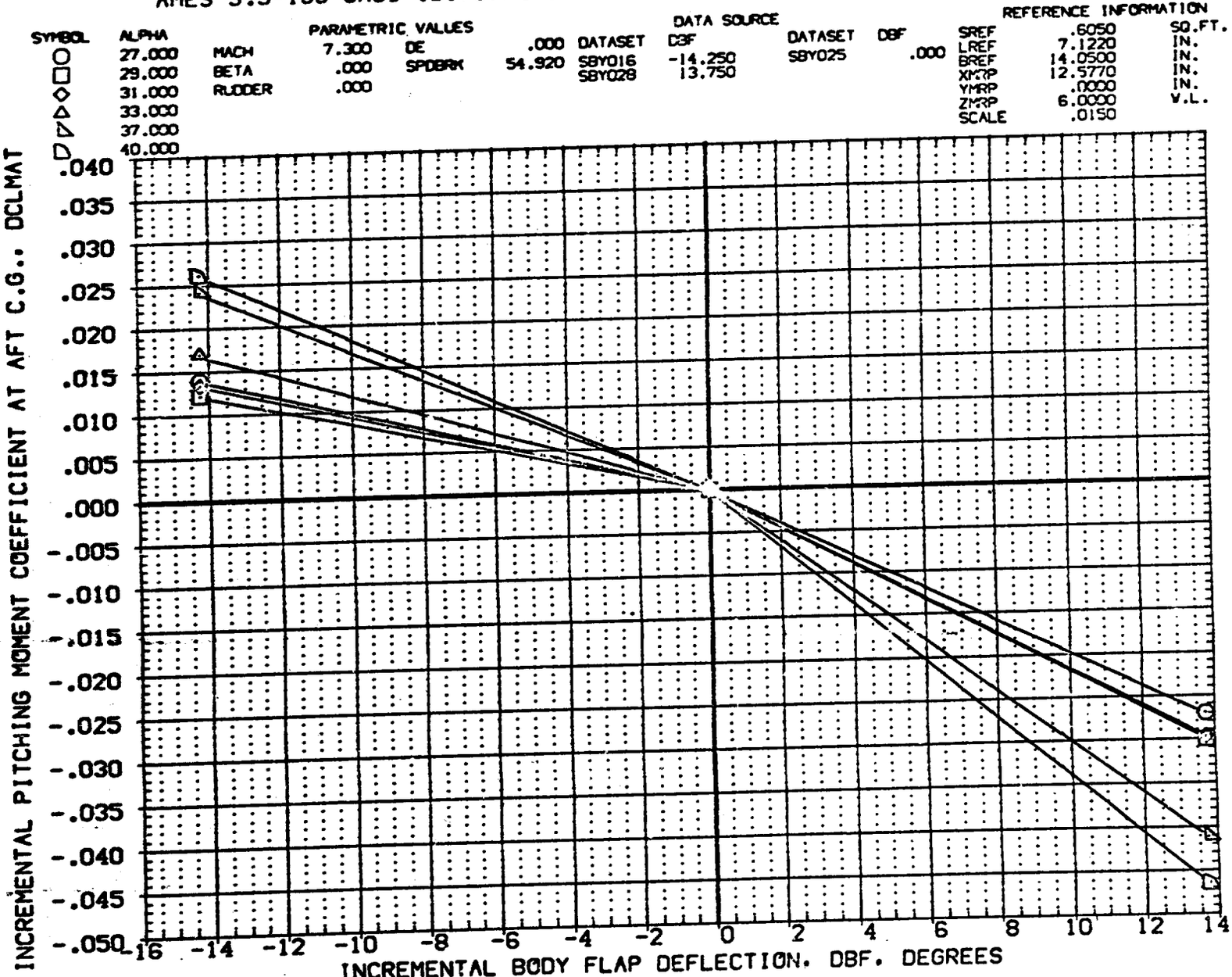


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY016)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	43.000	MACH	7.300	DE	.000	DATASET	DBF	DATASET	DBF	
□	48.000	BETA	.000	SPDBRK	54.920	SBY016	-14.250	SBY025	.000	
◇	52.000	RUDDER	.000			SBY028	13.750			

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

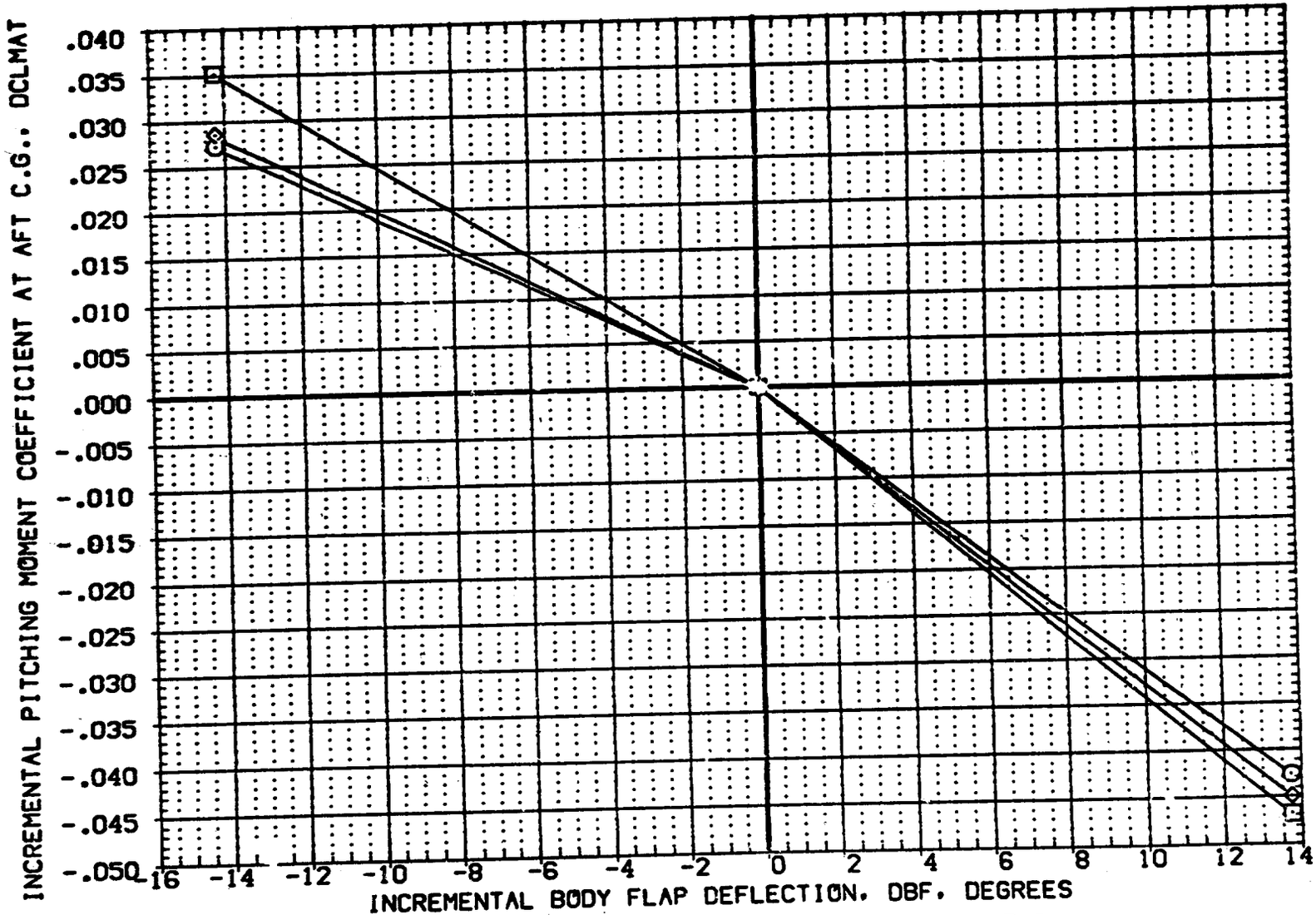


FIG. 12 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 7.3

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY017) ○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026) □	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029) ◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

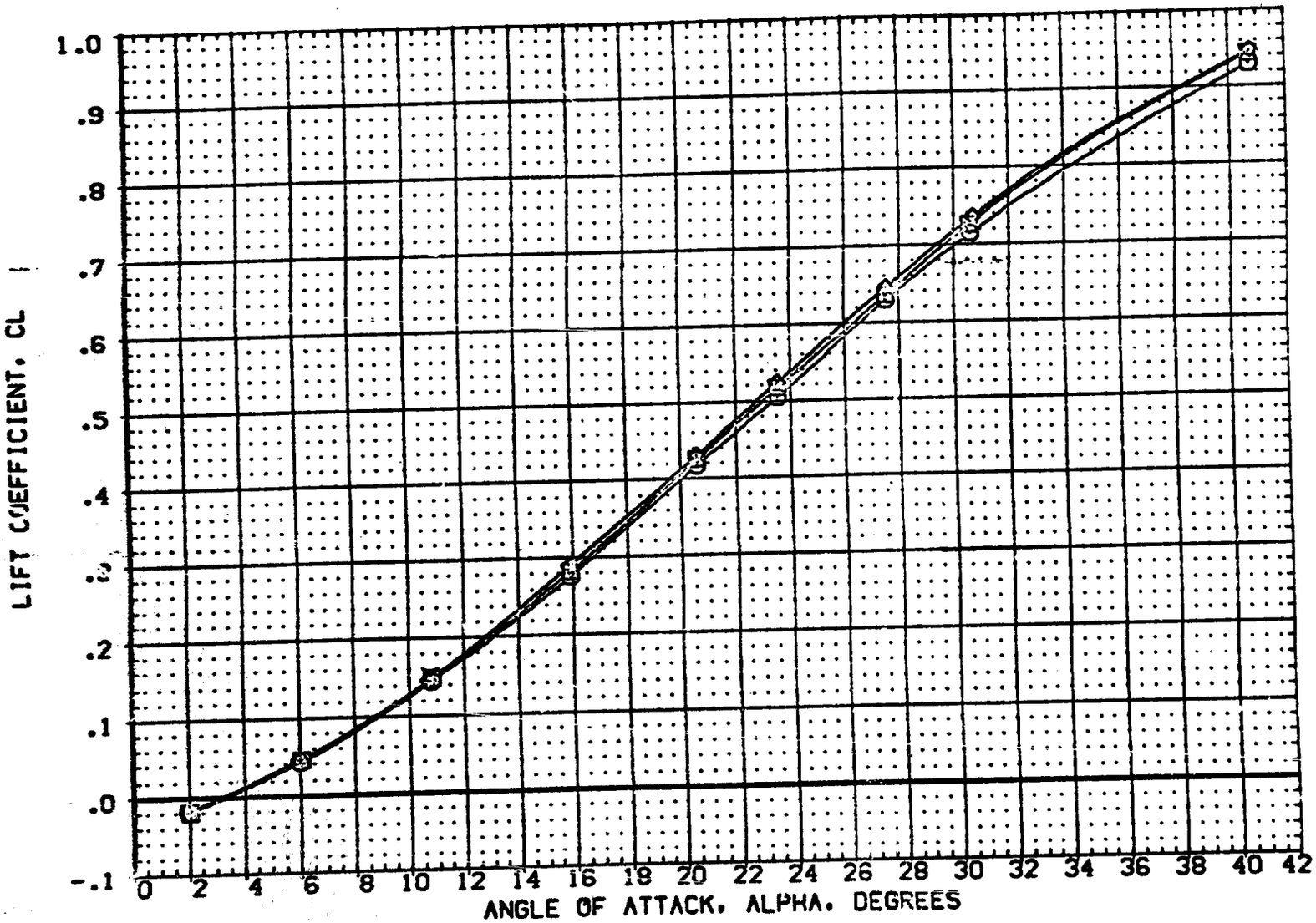


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B8Y017)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y026)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y029)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6090	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5778	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

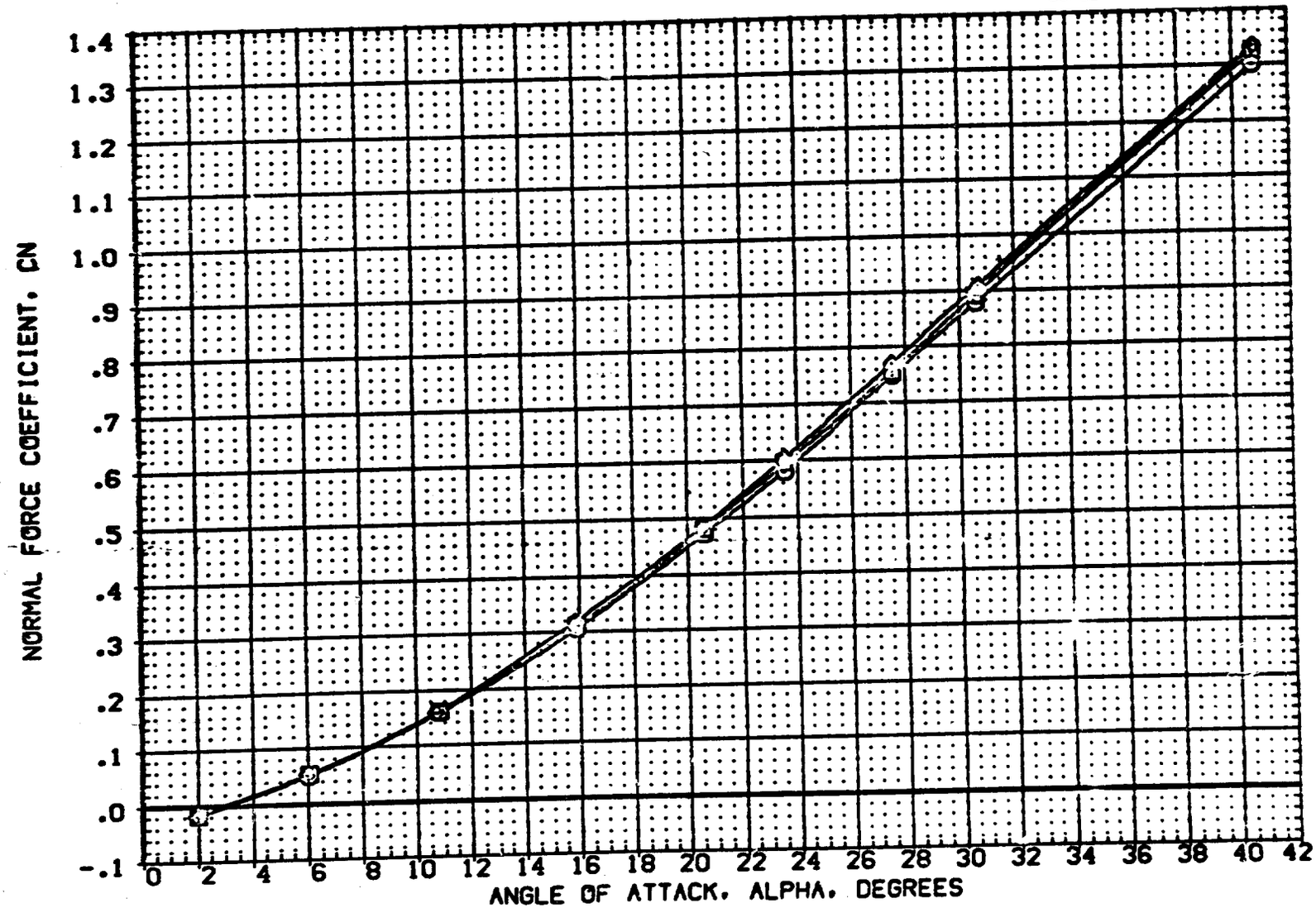


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B8Y017)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y026)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y029)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

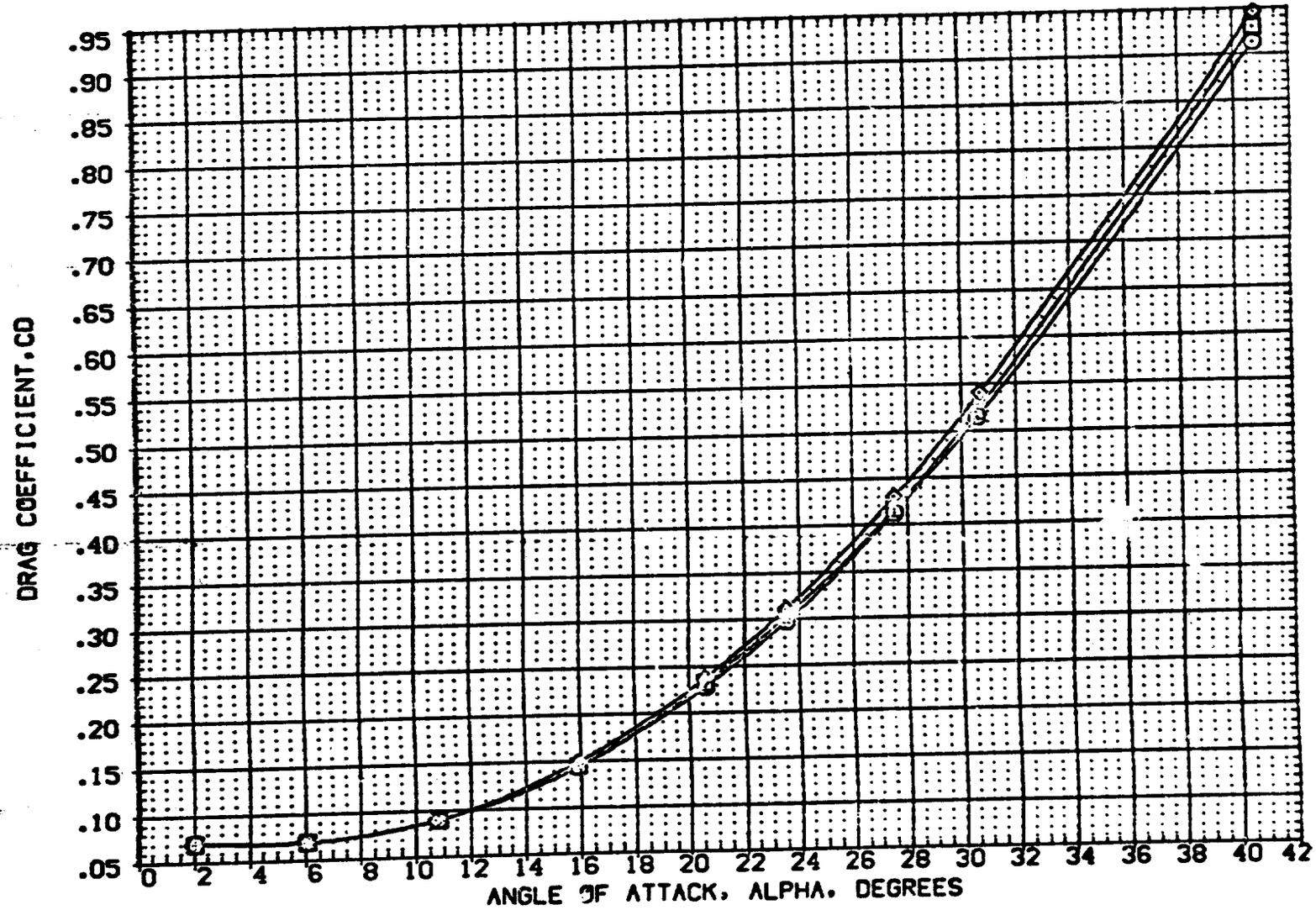


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY017)	□	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026)	○	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029)	◇	AMES 3.5-163 BASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

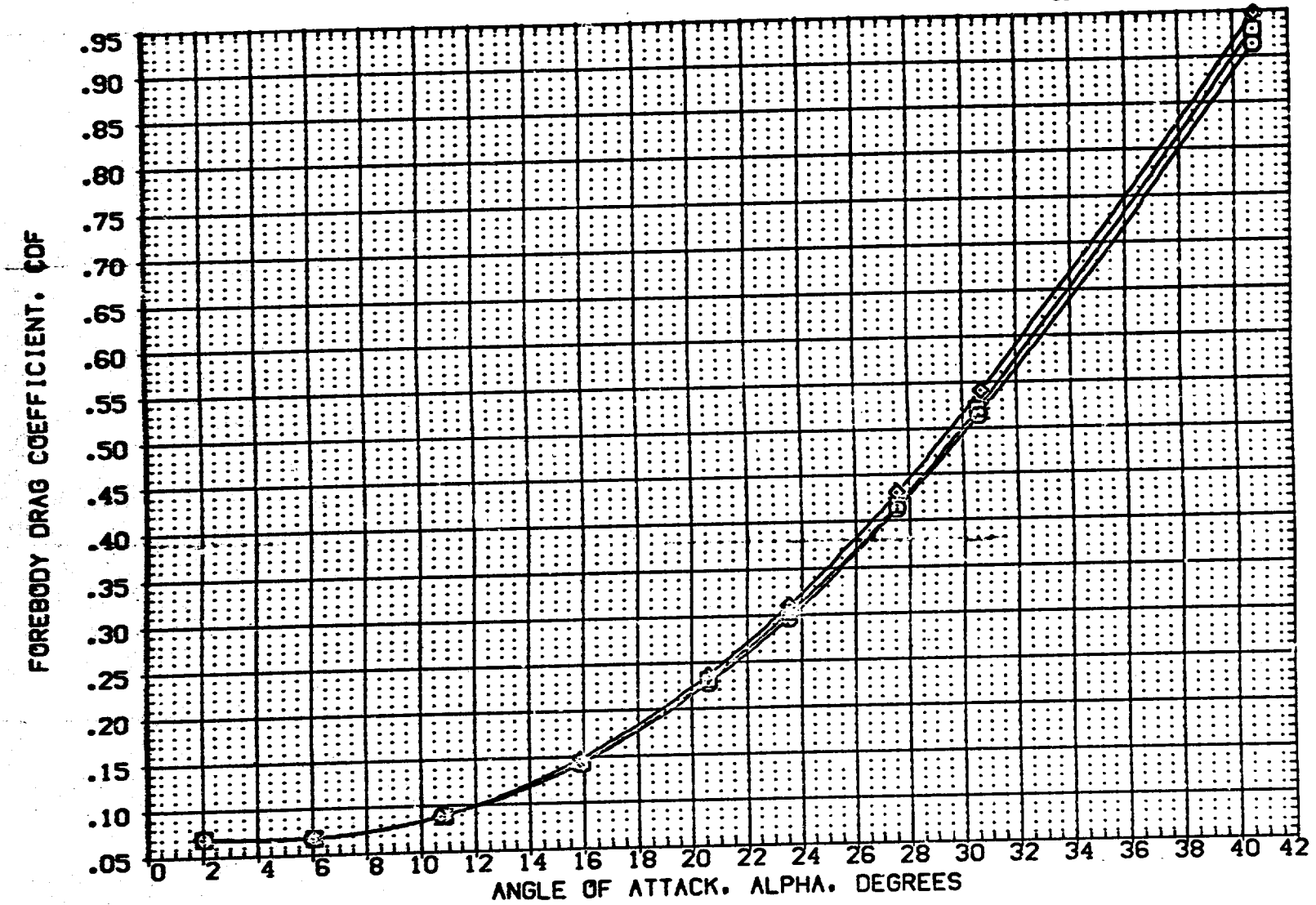


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY017)	○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026)	□	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029)	◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

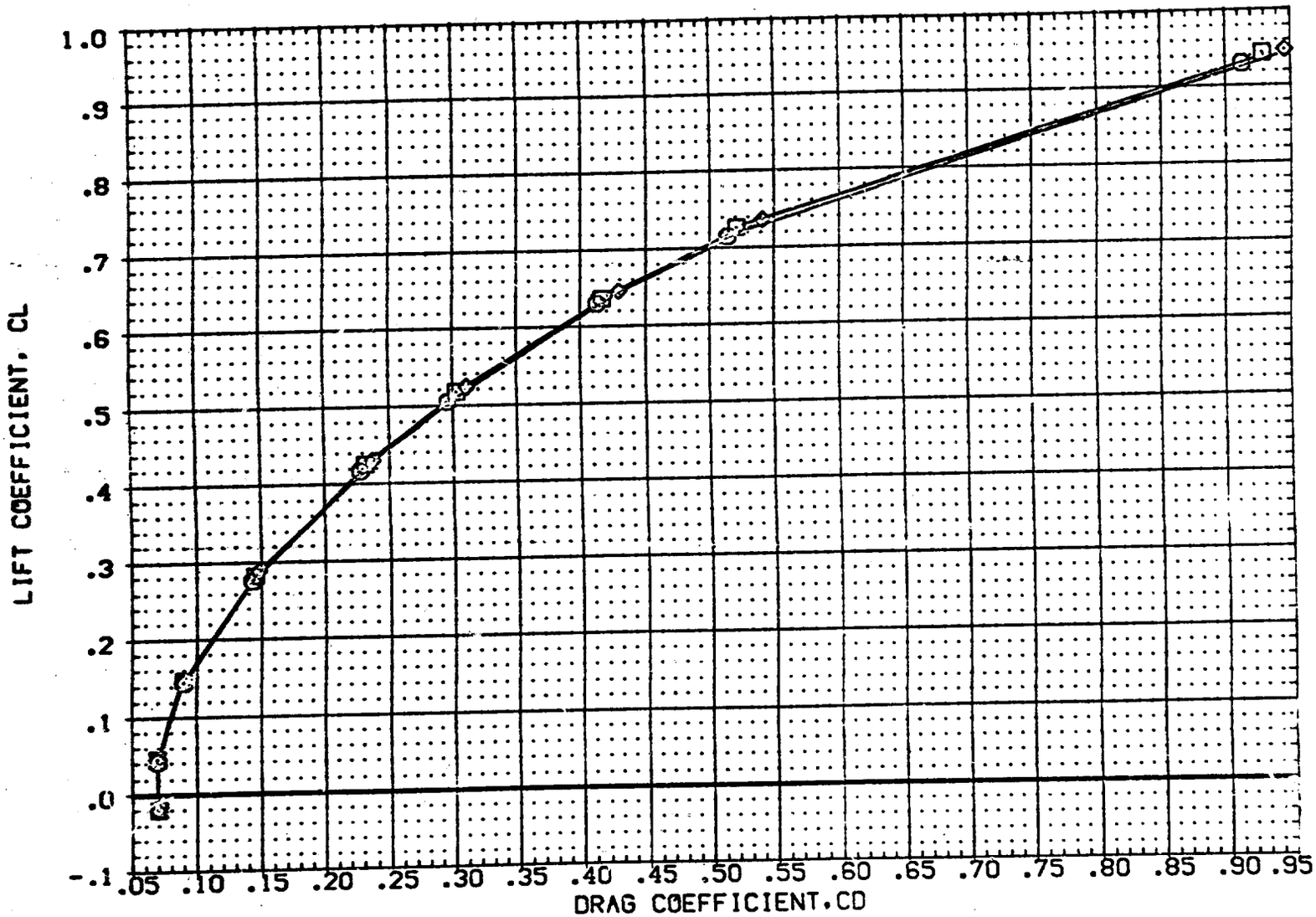


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY017)	○	AMES 3.5-163 JA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

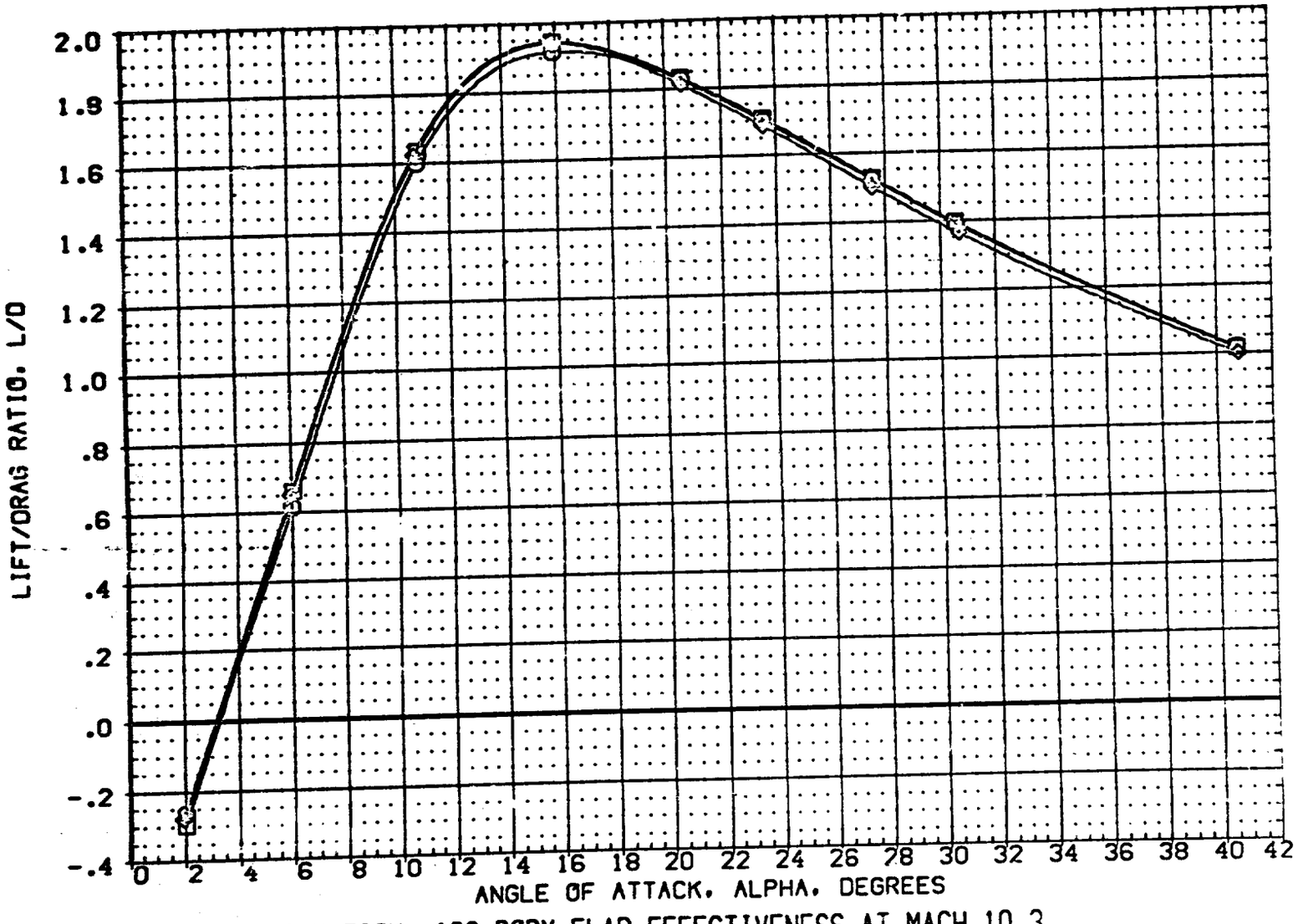


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(BBY017) ○	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026) □	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029) ◇	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

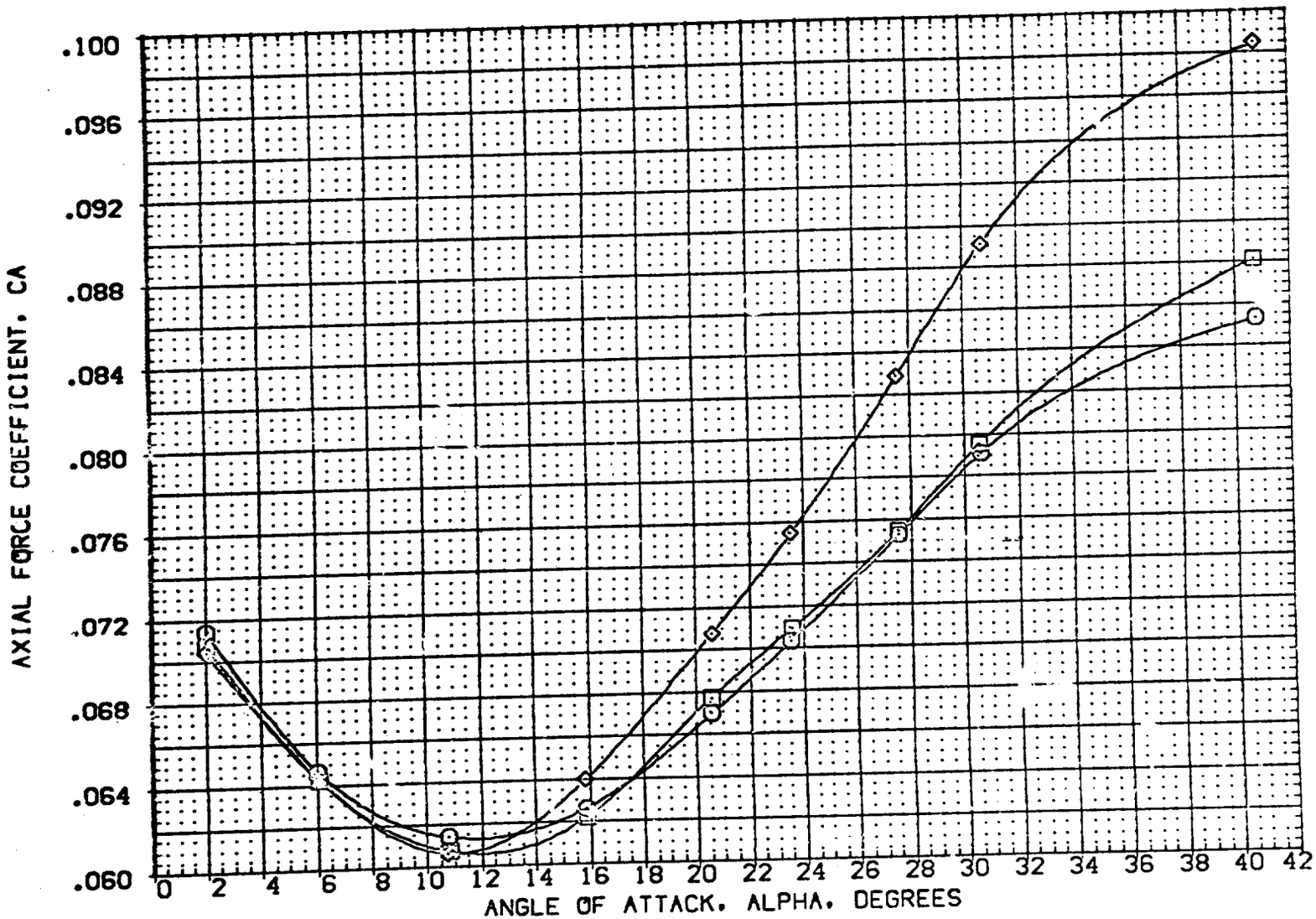


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B3Y017)	AMES 3.5-163 0A58 (B17C7M4FS)(W103E22)(V7R5)	.000	.000	-14.250	54.920
(B3Y026)	AMES 3.5-163 0A53 (B17C7M4FS)(W103E22)(V7R5)	.000	.000	.000	54.920
(B3Y029)	AMES 3.5-163 0A58 (B17C7M4FS)(W103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

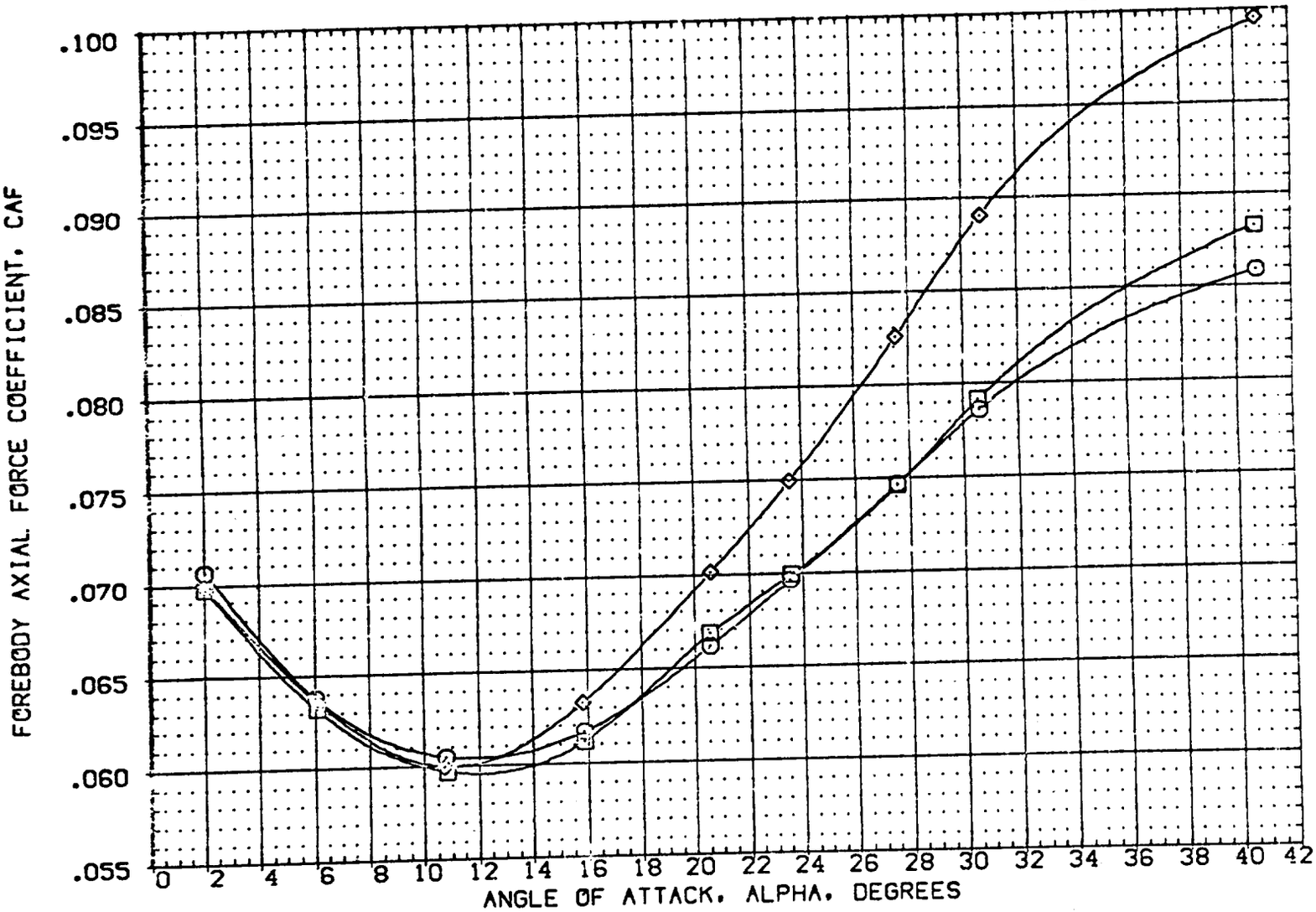


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(B8Y017) ○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y026) □	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y029) ◇	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

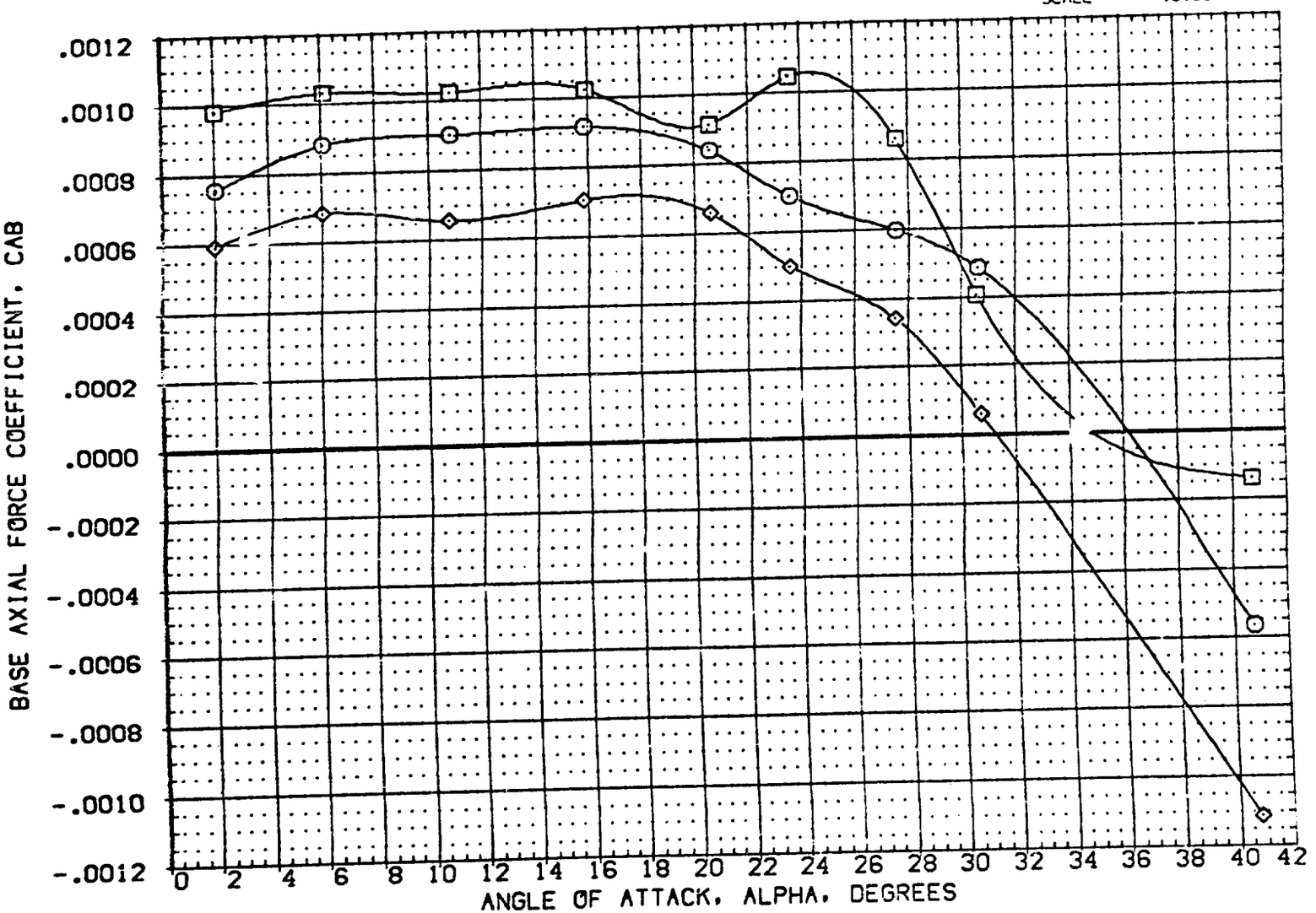


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	SPOBRK
(B8Y017)	○	AMES 3.5-163 CASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(B8Y026)	□	AMES 3.5-163 CASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(B8Y029)	◇	AMES 3.5-163 CASE (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

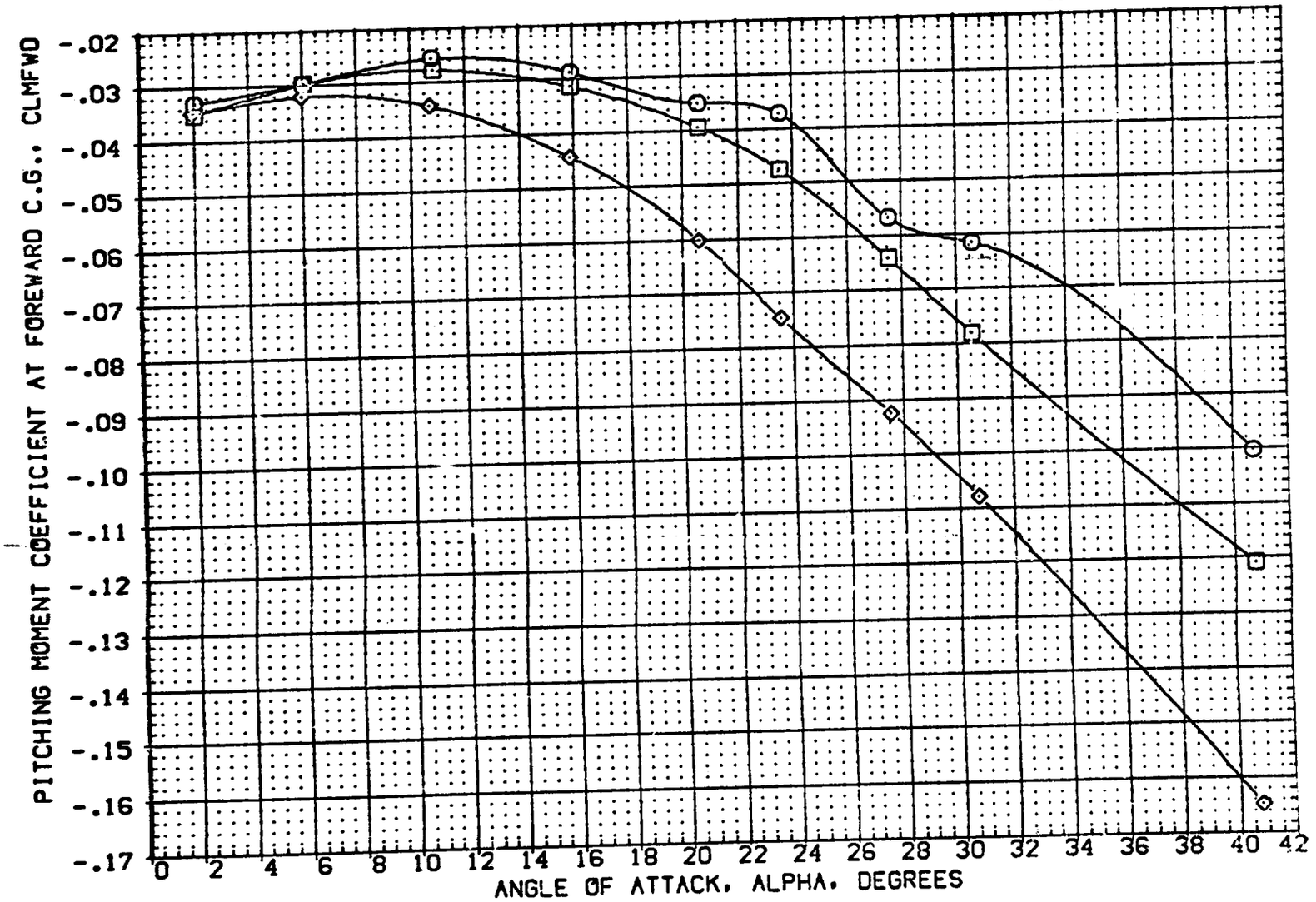


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(88Y017) ○	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y026) □	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y029) ◇	AMES 3.5-163 OAS8 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

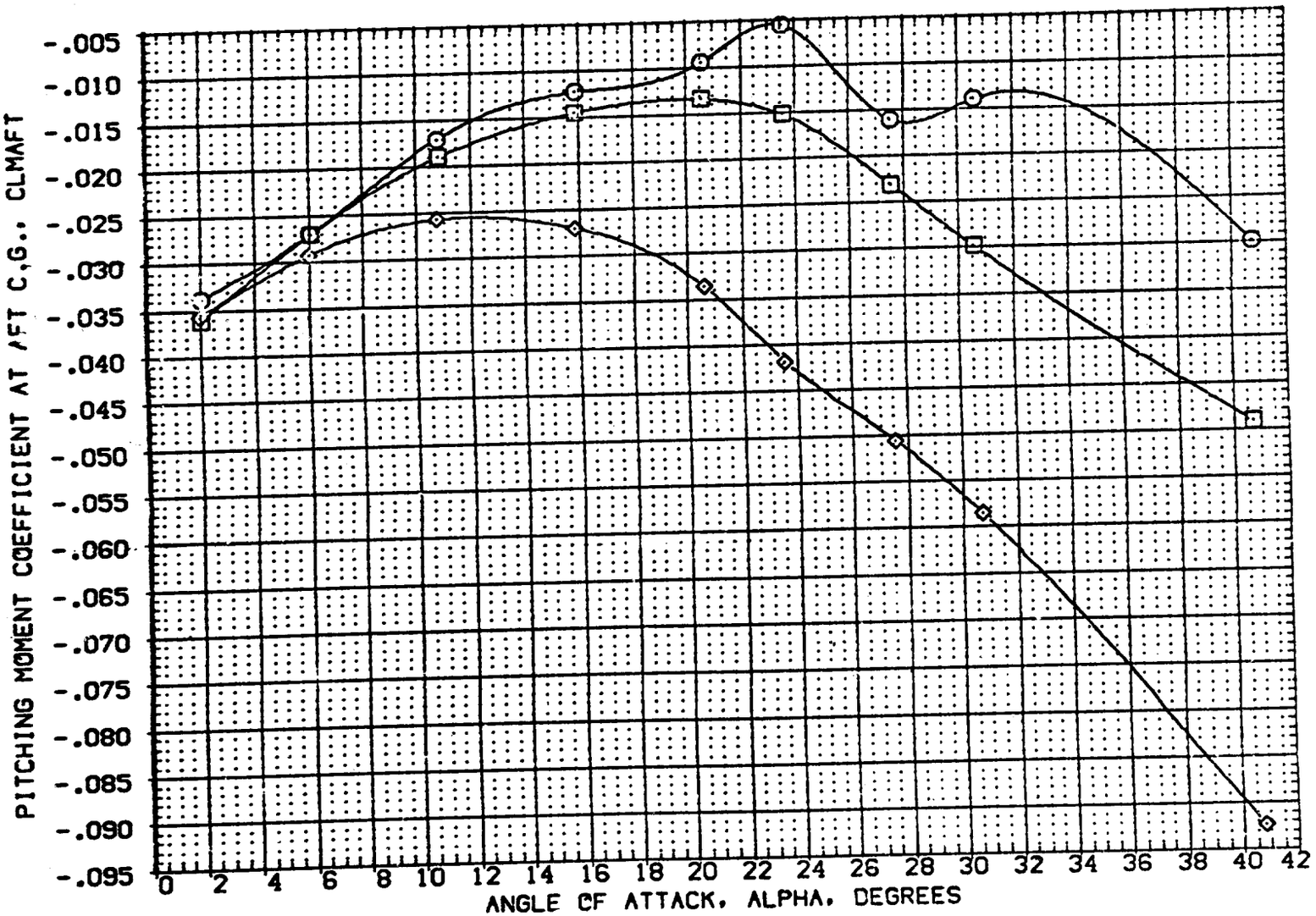


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPOBRK
(88Y017)	○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(88Y026)	□	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(88Y029)	◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	



FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(BBY017)	AMES 3.5-163 DA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(BBY026)	AMES 3.5-163 DA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(BBY029)	AMES 3.5-163 DA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

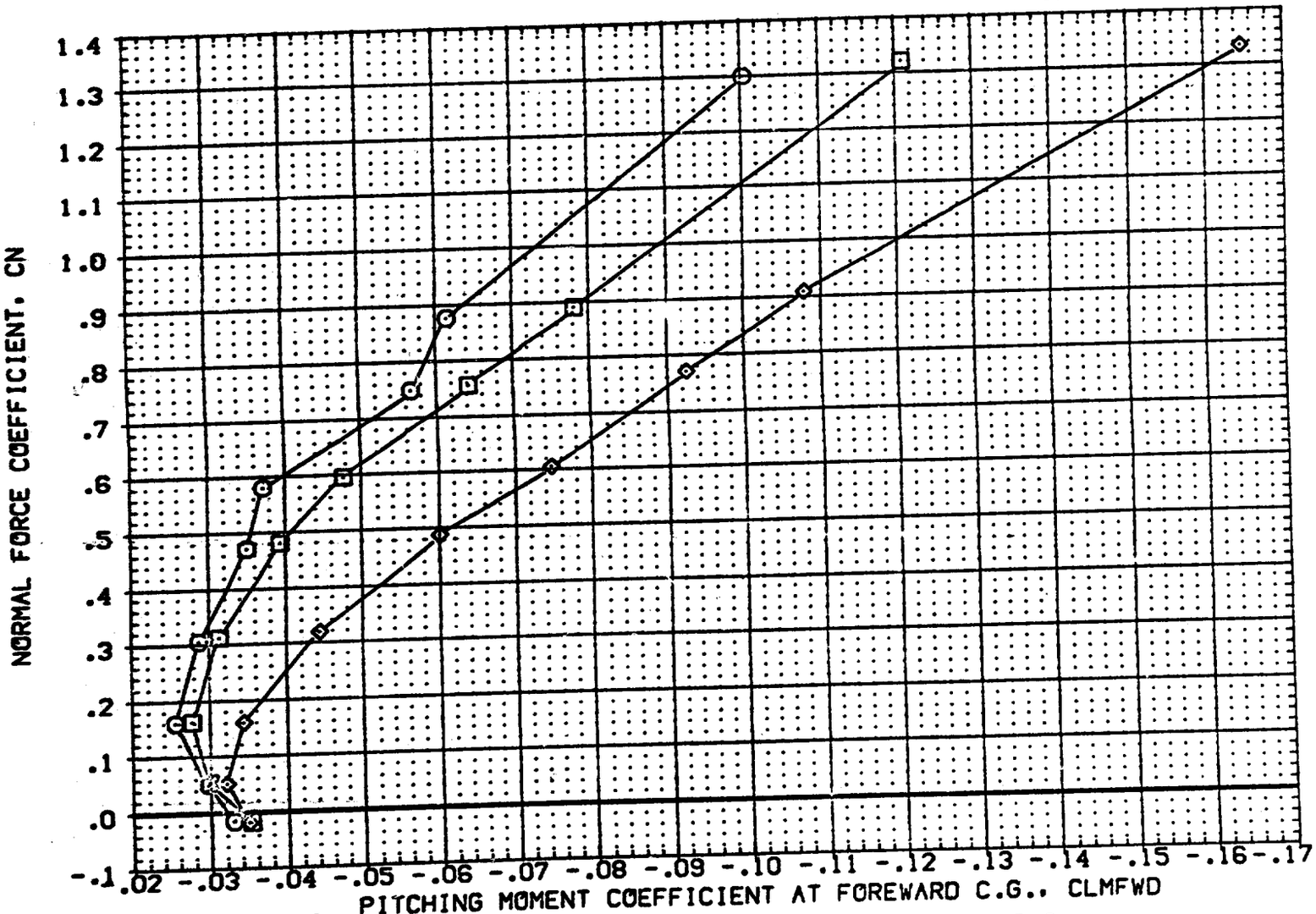


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BDFLAP	SPDBRK
(RBY017) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(RBY026) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	.000	54.920
(RBY029) ◇	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

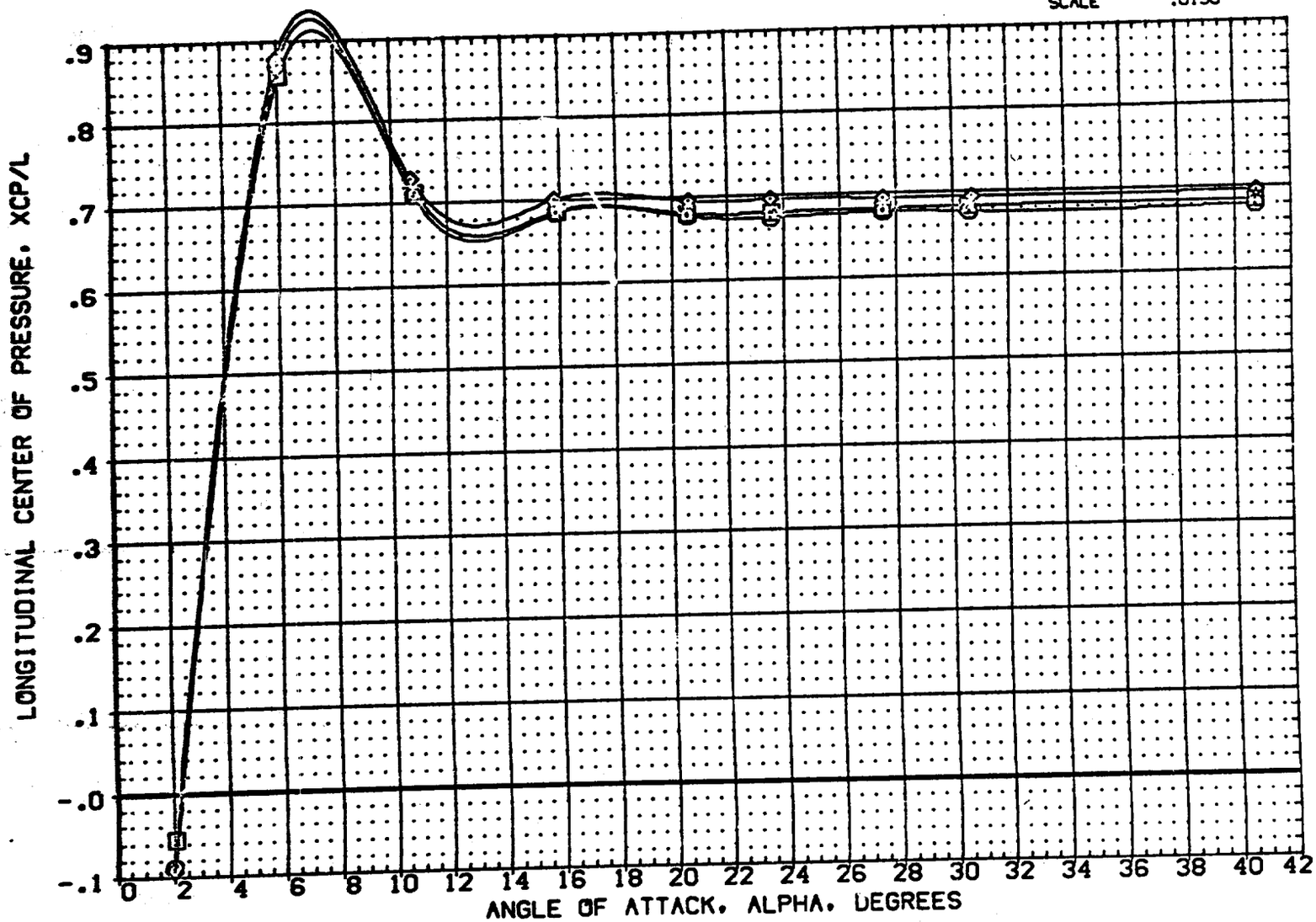


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.29

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY017)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

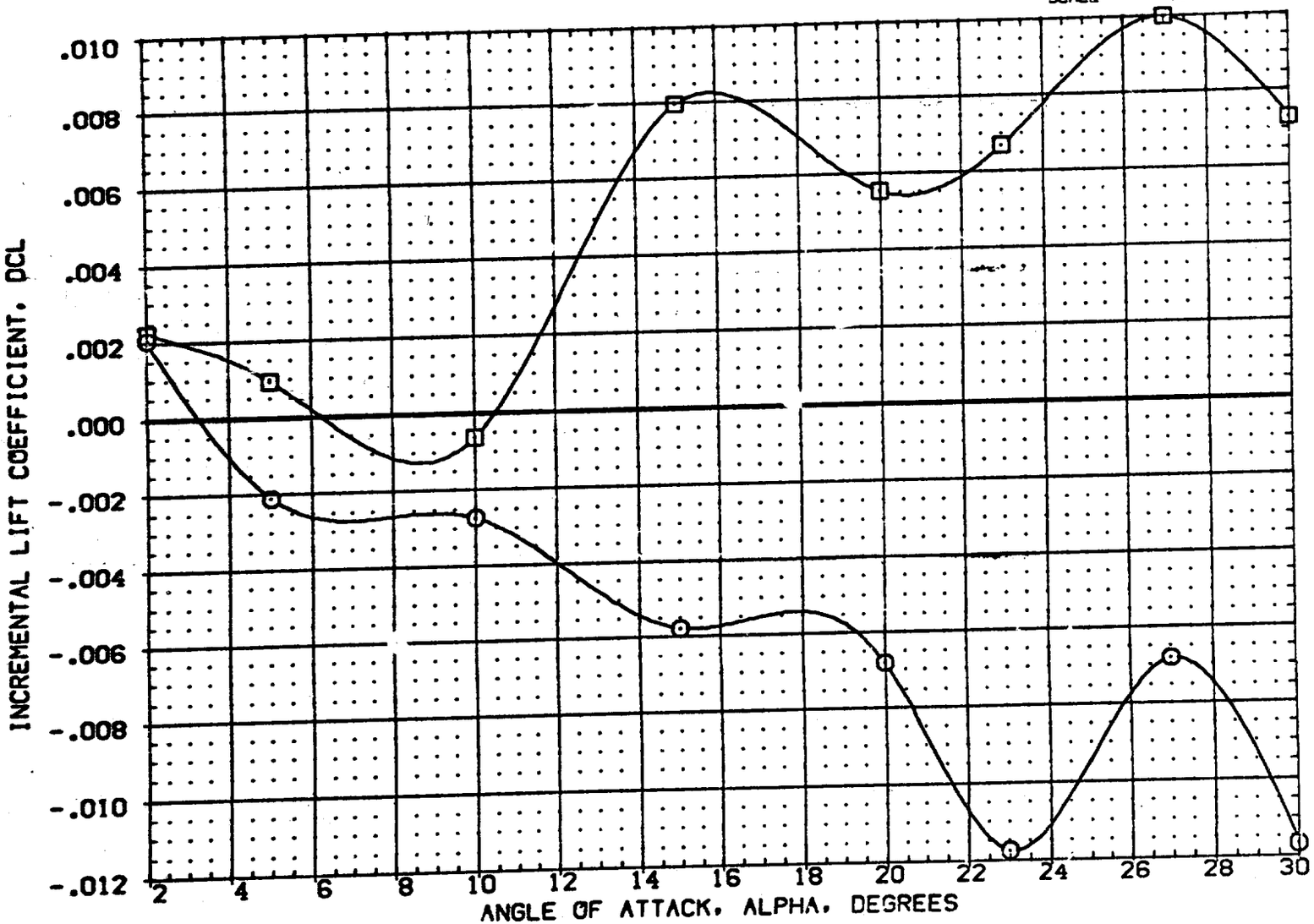


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY017)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029)	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

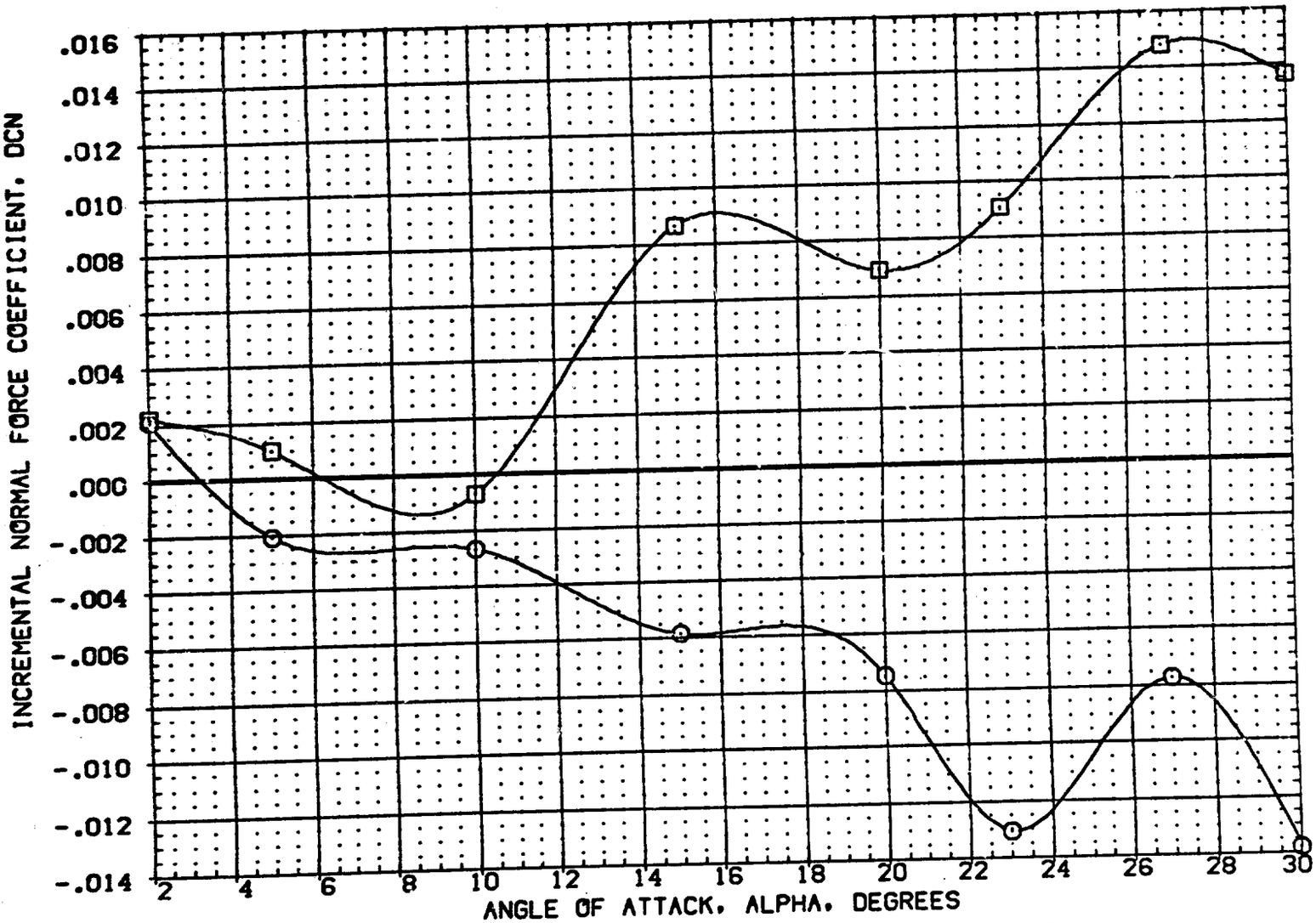


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBY017) ○	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029) □	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

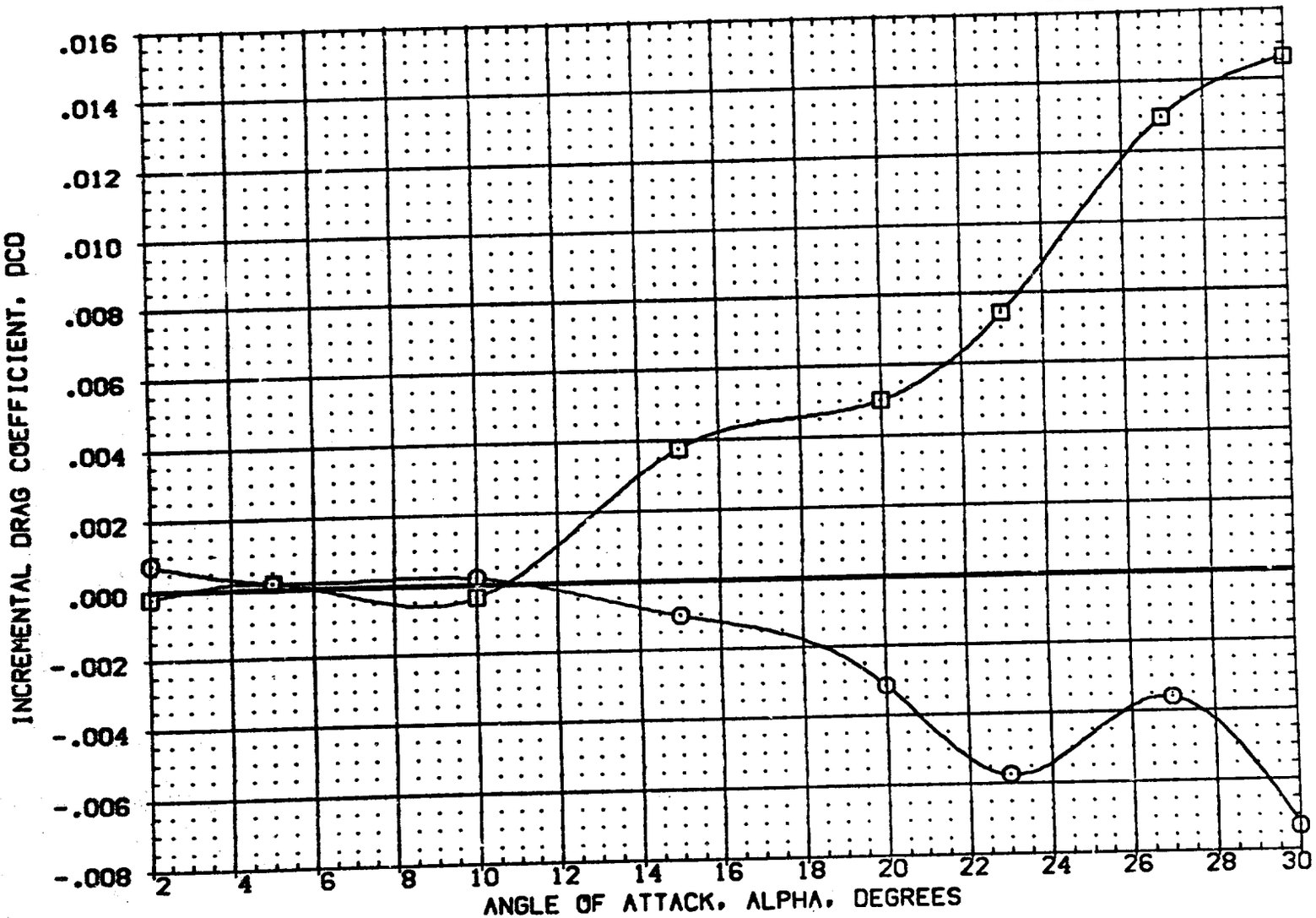


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY017)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	14.250	54.920
(SBY029)	AMES 3.5-163 OA58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

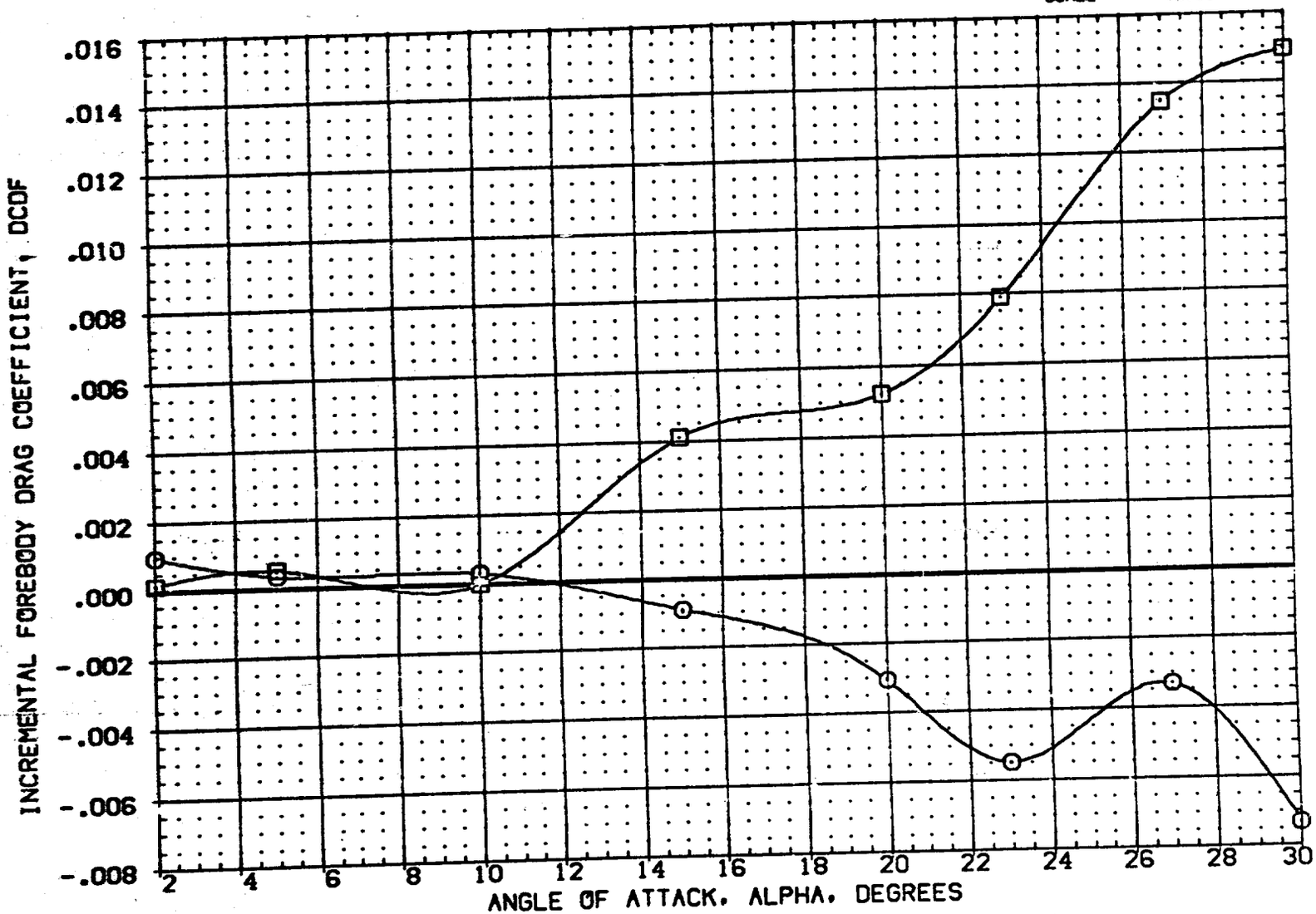


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPOBRK
(SBY017)	AMES 3.5-163 CASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029)	AMES 3.5-163 CASB (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

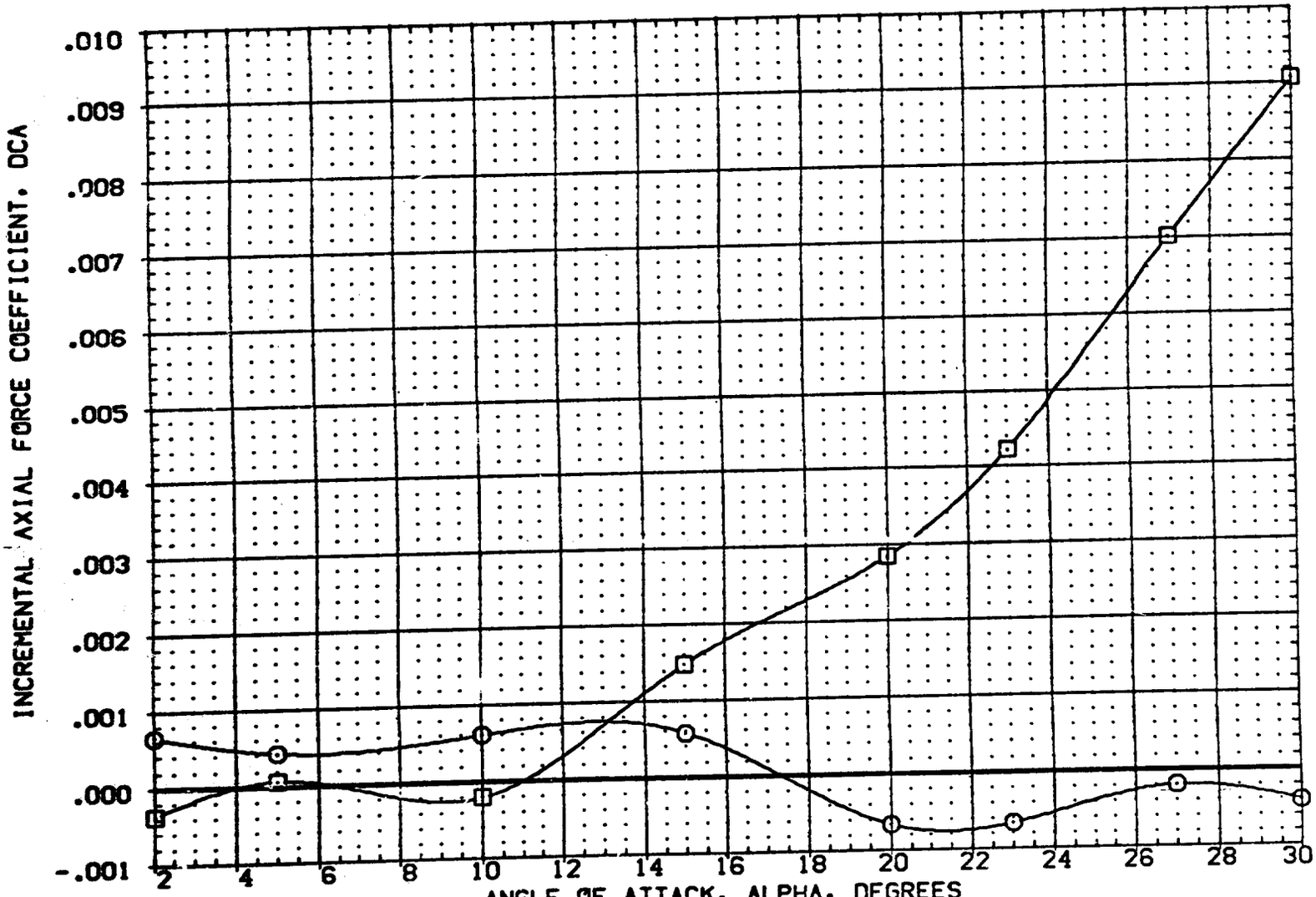


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	OBF	SPOBRK
(SBY017) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

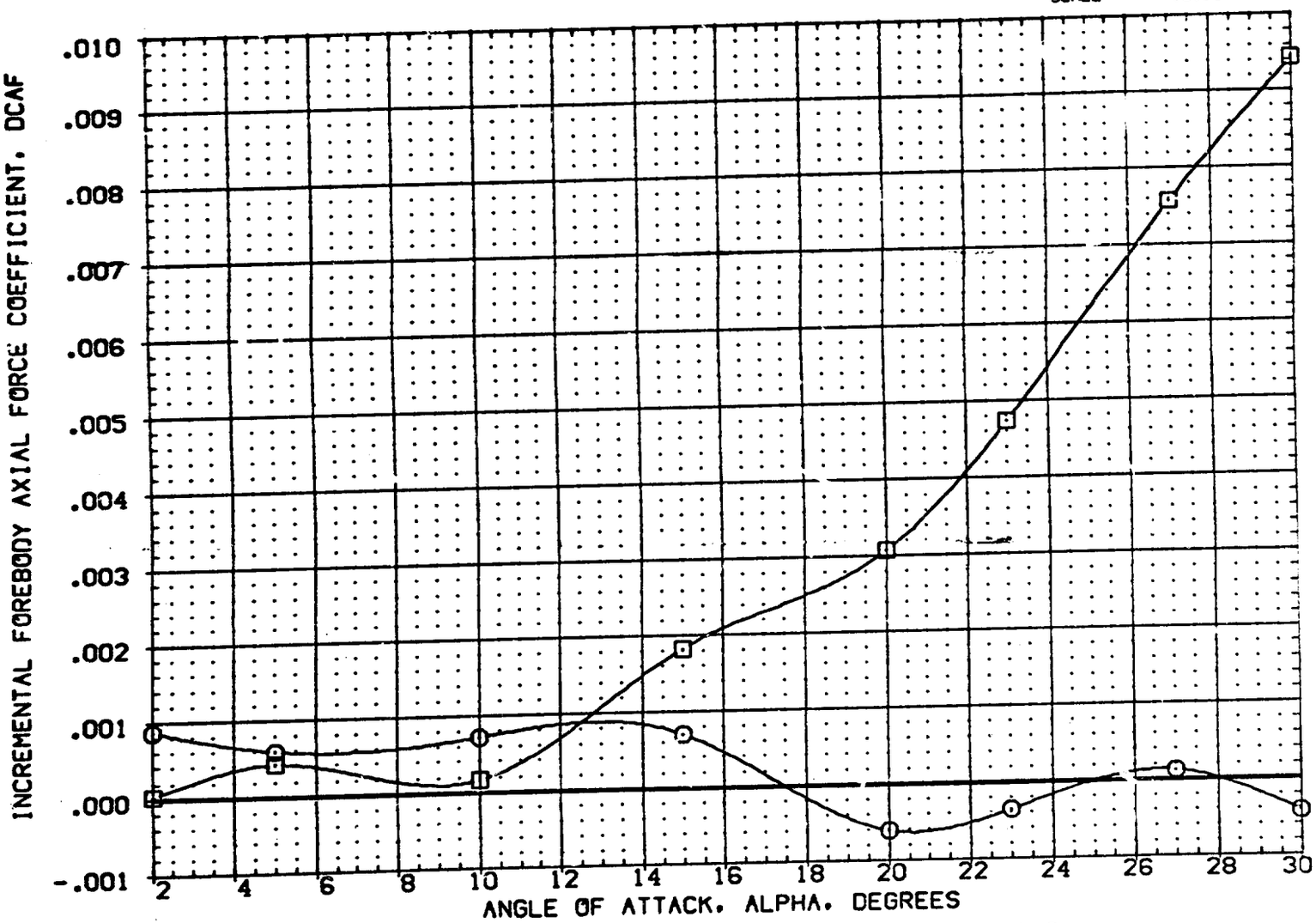


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBY017) ○	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	-14.250	54.920
(SBY029) □	AMES 3.5-163 0A58 (B17C7M4F5)(V103E22)(V7R5)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

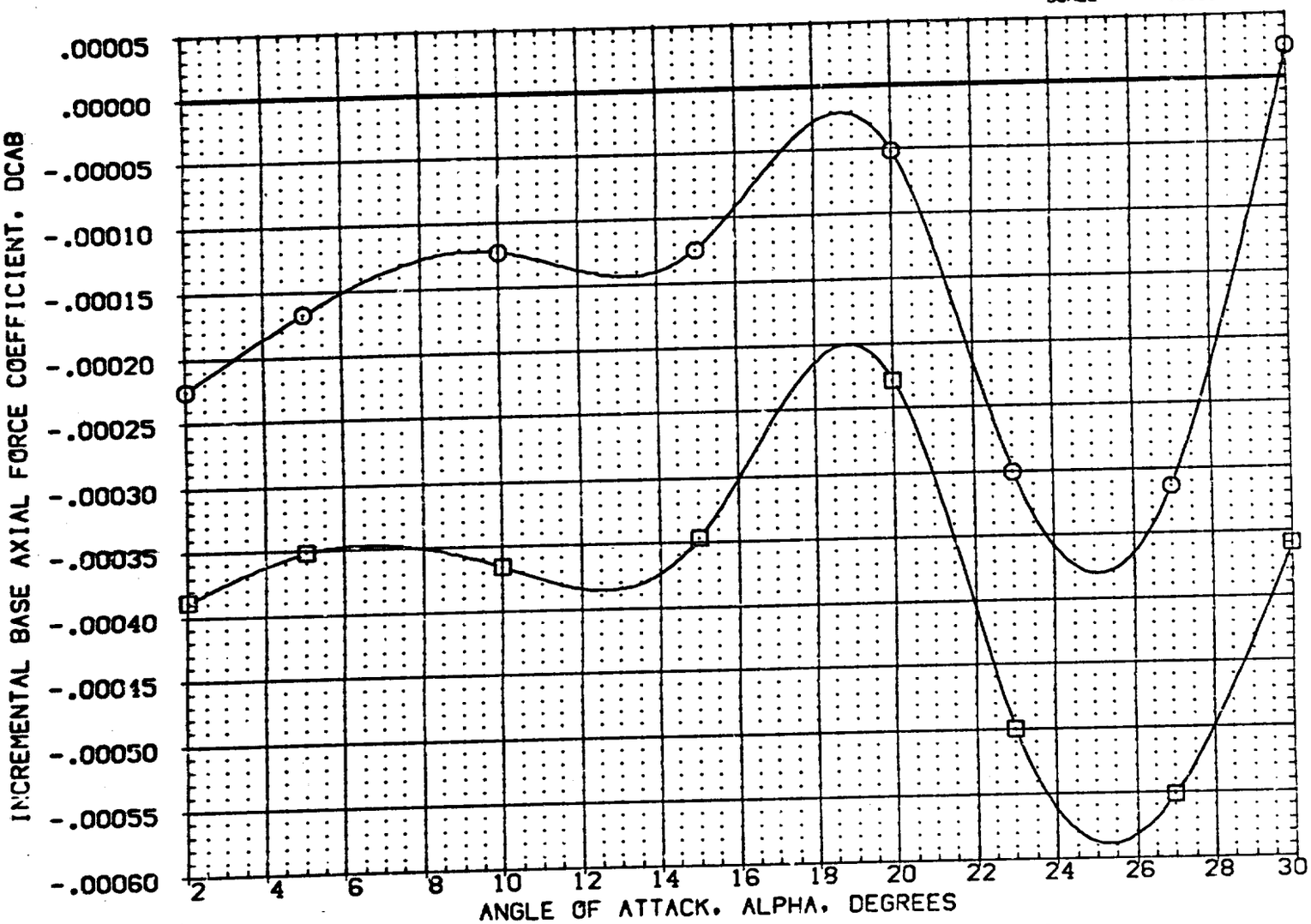


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

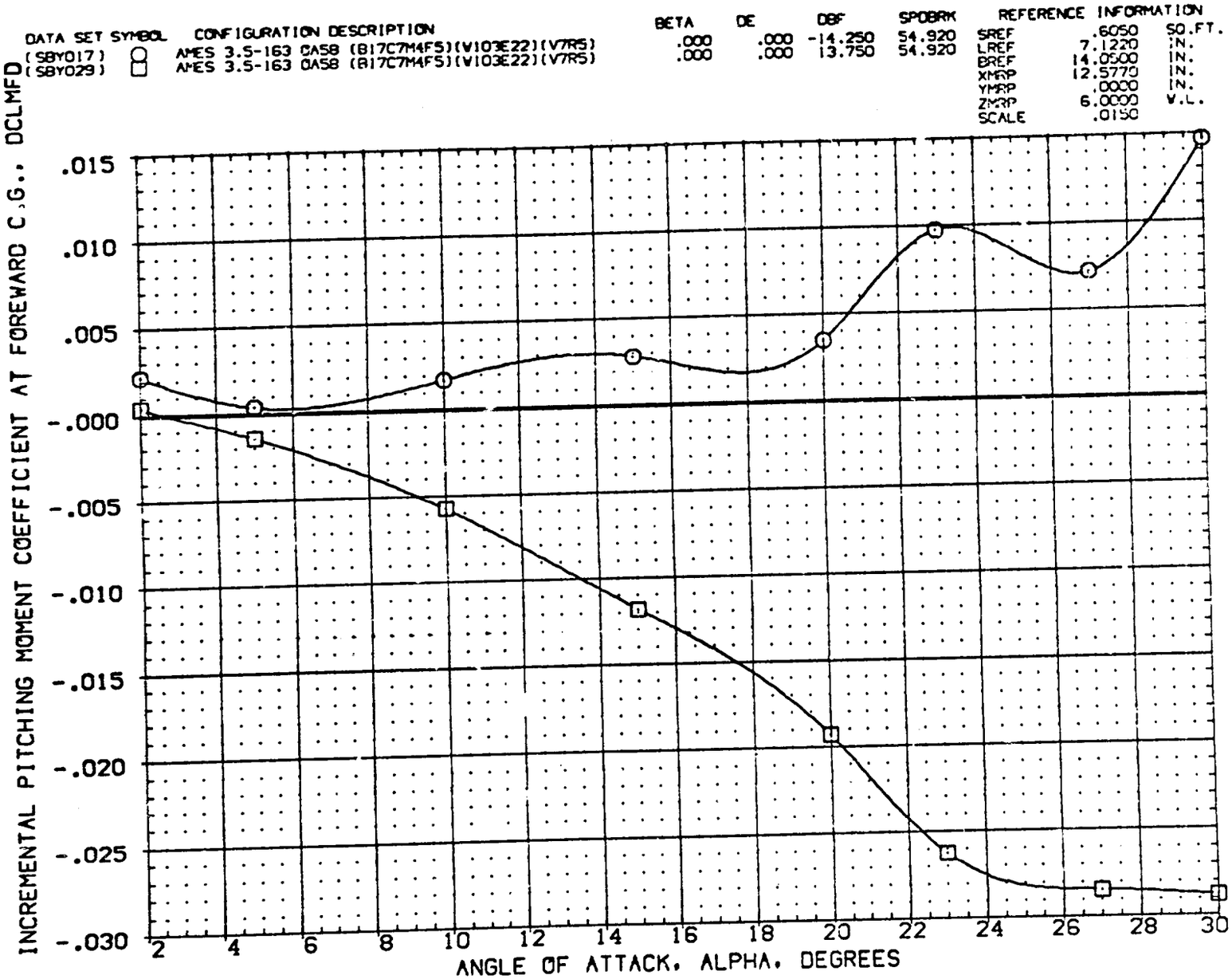


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	DE	DBF	SPDBRK
(SBY017) ○	AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	-14.250	54.920
(SBY029) □	AMES 3.5-163 0A58 (B17C7M4FS)(V103E22)(V7RS)	.000	.000	13.750	54.920

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	V.L.
SCALE	.0150	

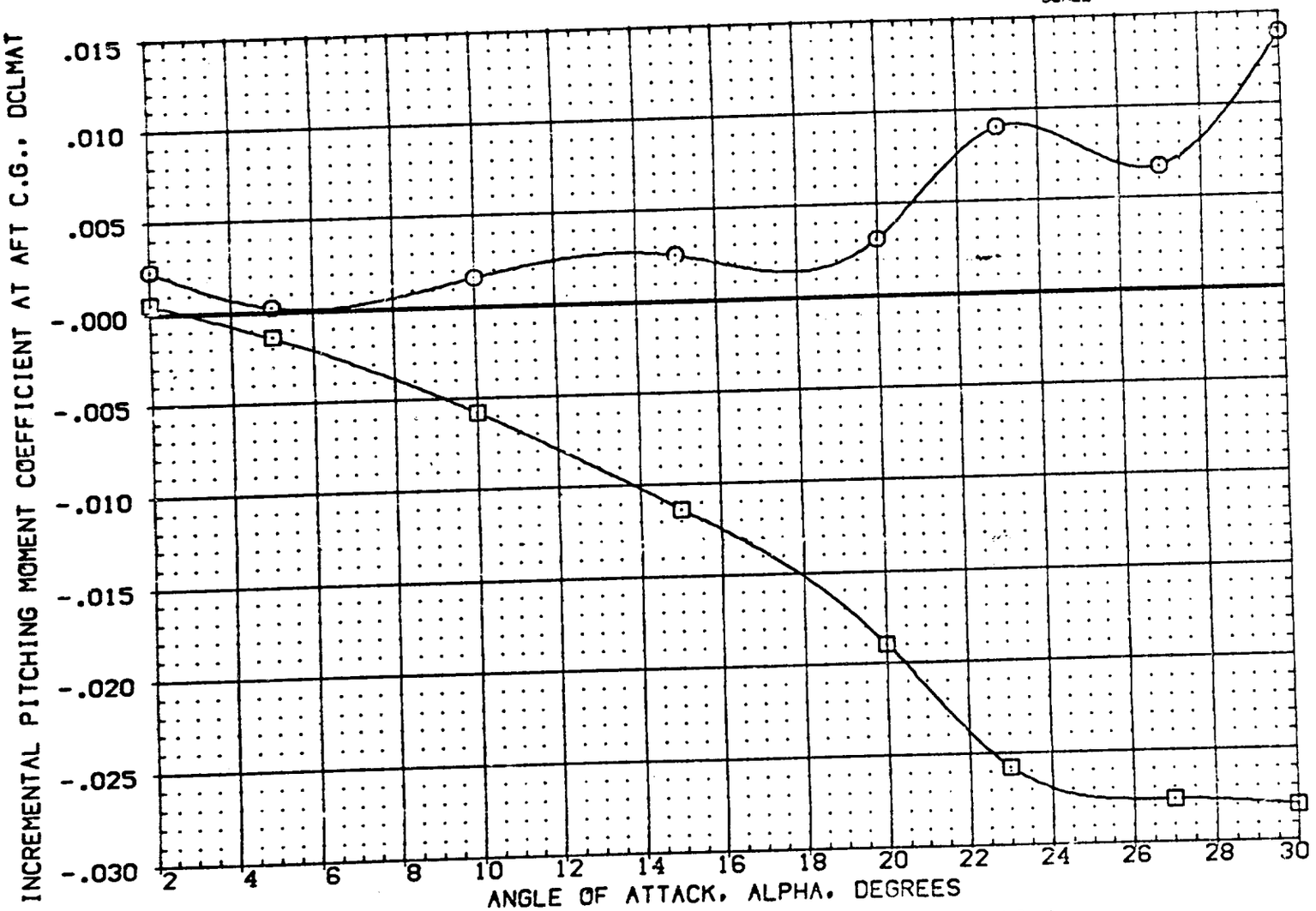


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

(A)MACH = 10.30

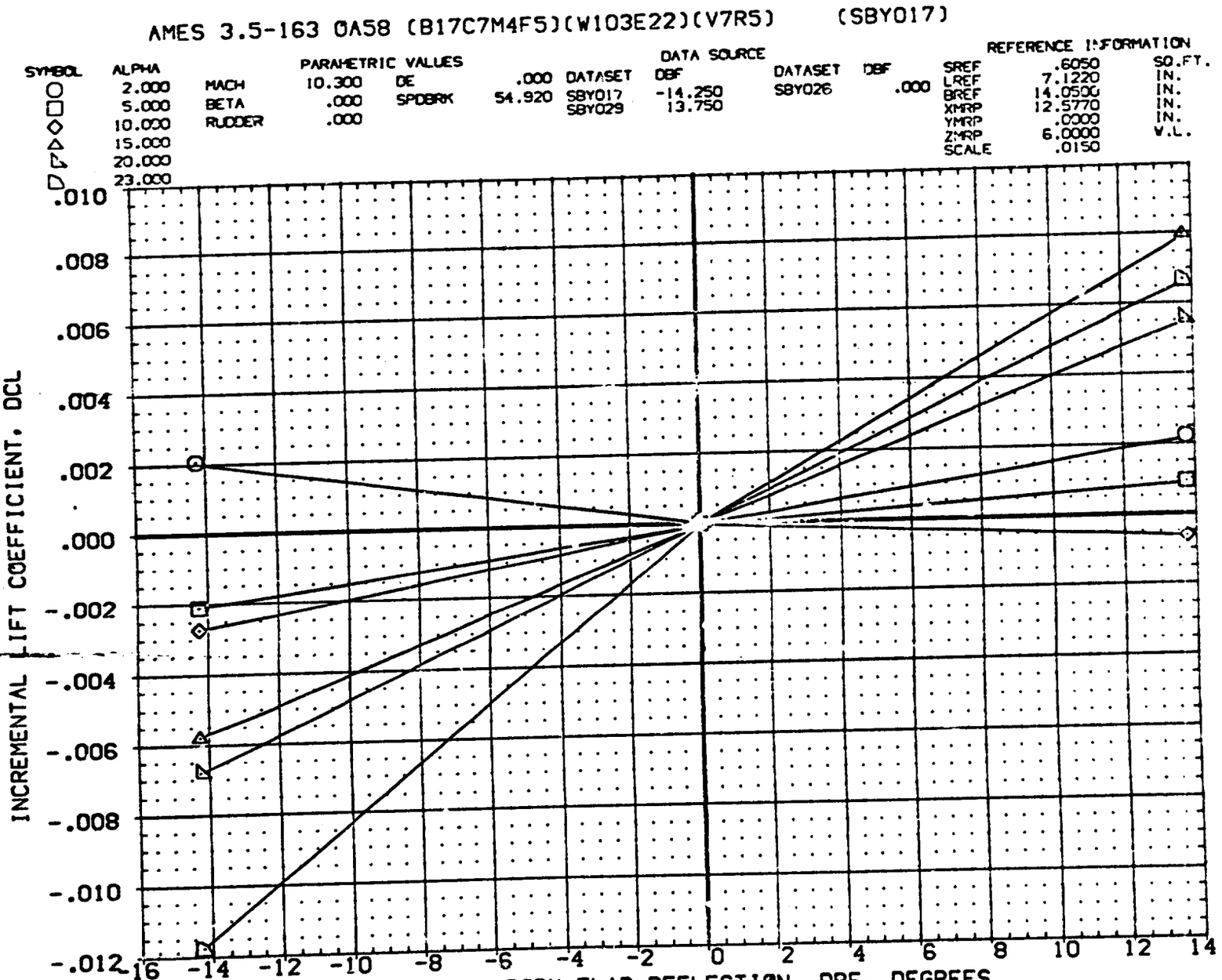


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	DE	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	30.000	BETA	.000	SPOBRK	54.920	SBY017	-14.250	SBY026	.000	LREF	7.1220	IN.
		RUDDER	.000			SBY029	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

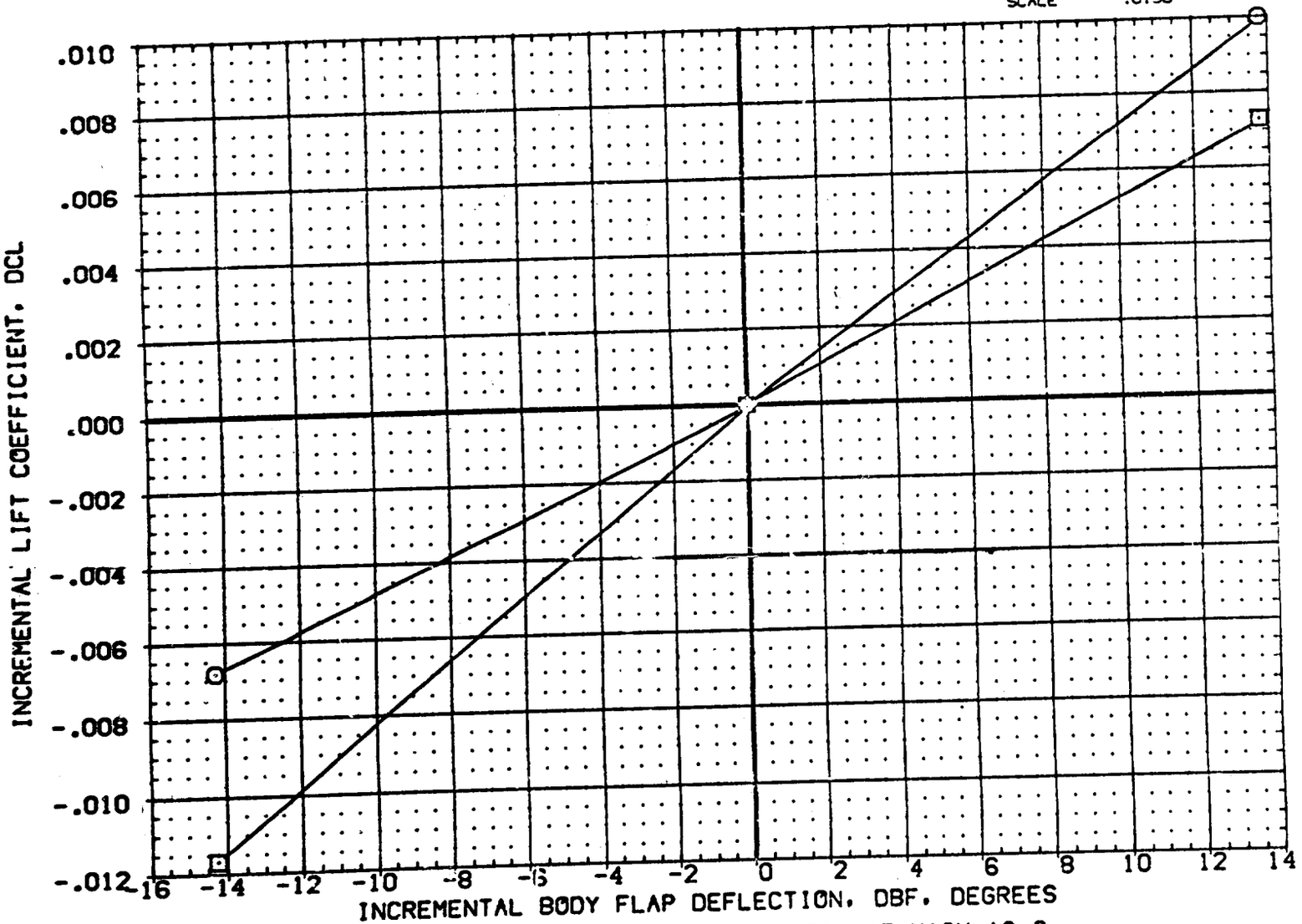


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

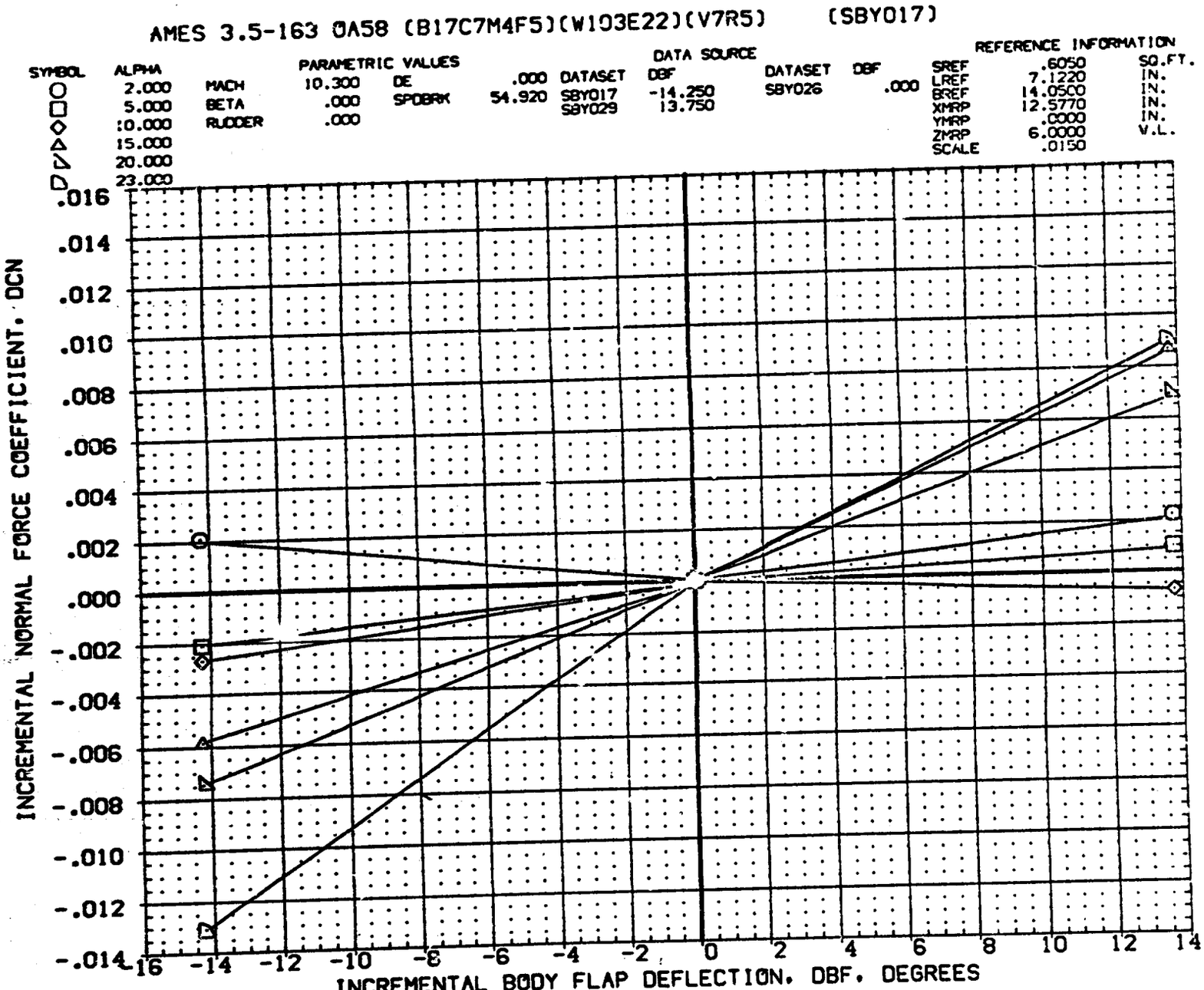


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE					REFERENCE INFORMATION		
○	27.000	MACH	10.300	DE	.000	DATASET	DBF	DATASET	DBF		SREF	.6050	SQ.FT.
□	30.000	BETA	.000	SPOBRK	54.920	SBY017	-14.250	SBY026	.000		LREF	7.1220	IN.
		RUDDER	.000			SBY029	13.750				BREF	14.0500	IN.
											XMRP	12.5770	IN.
											YMRP	.0000	IN.
											ZMRP	6.0000	W.L.
											SCALE	.0150	

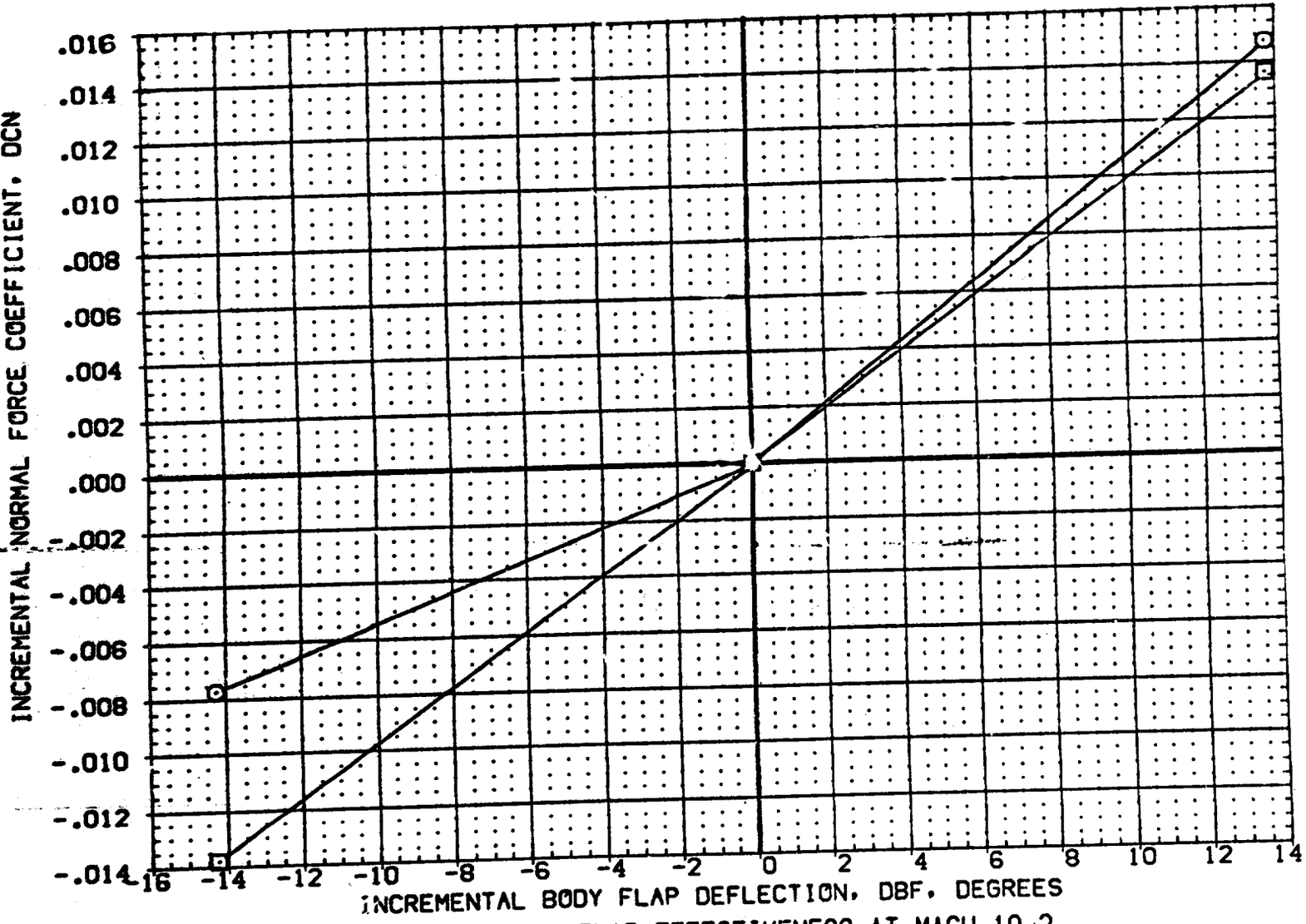


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

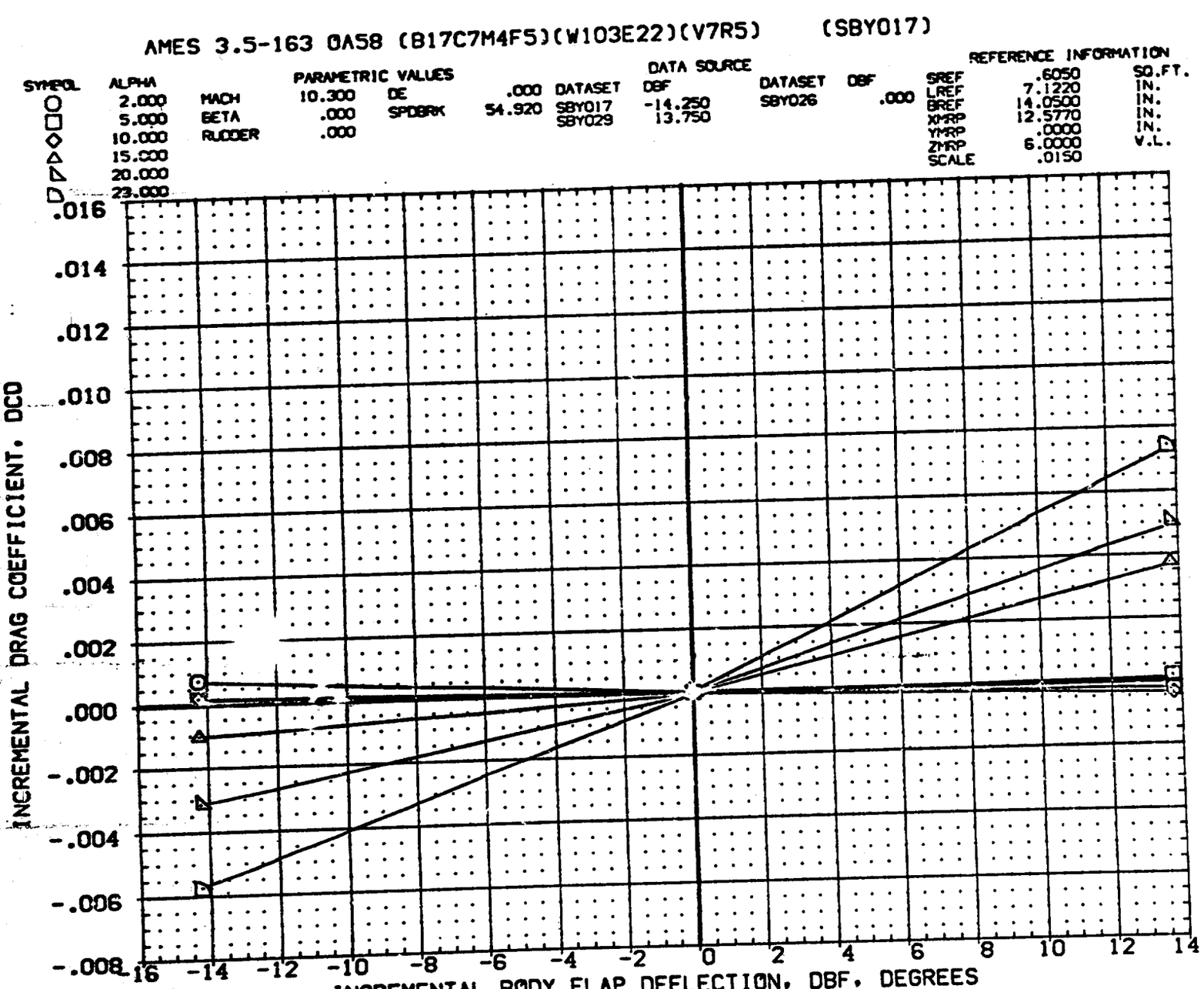


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	27.000	MACH	10.300	DE	.000	DATASET	DBF	DATASET	DBF	
□	30.000	BETA	.000	SPOBRK	54.920	SBY017	-14.250	SBY026	.000	
		RUDDER	.000			SBY029	13.750			

REFERENCE INFORMATION		
SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

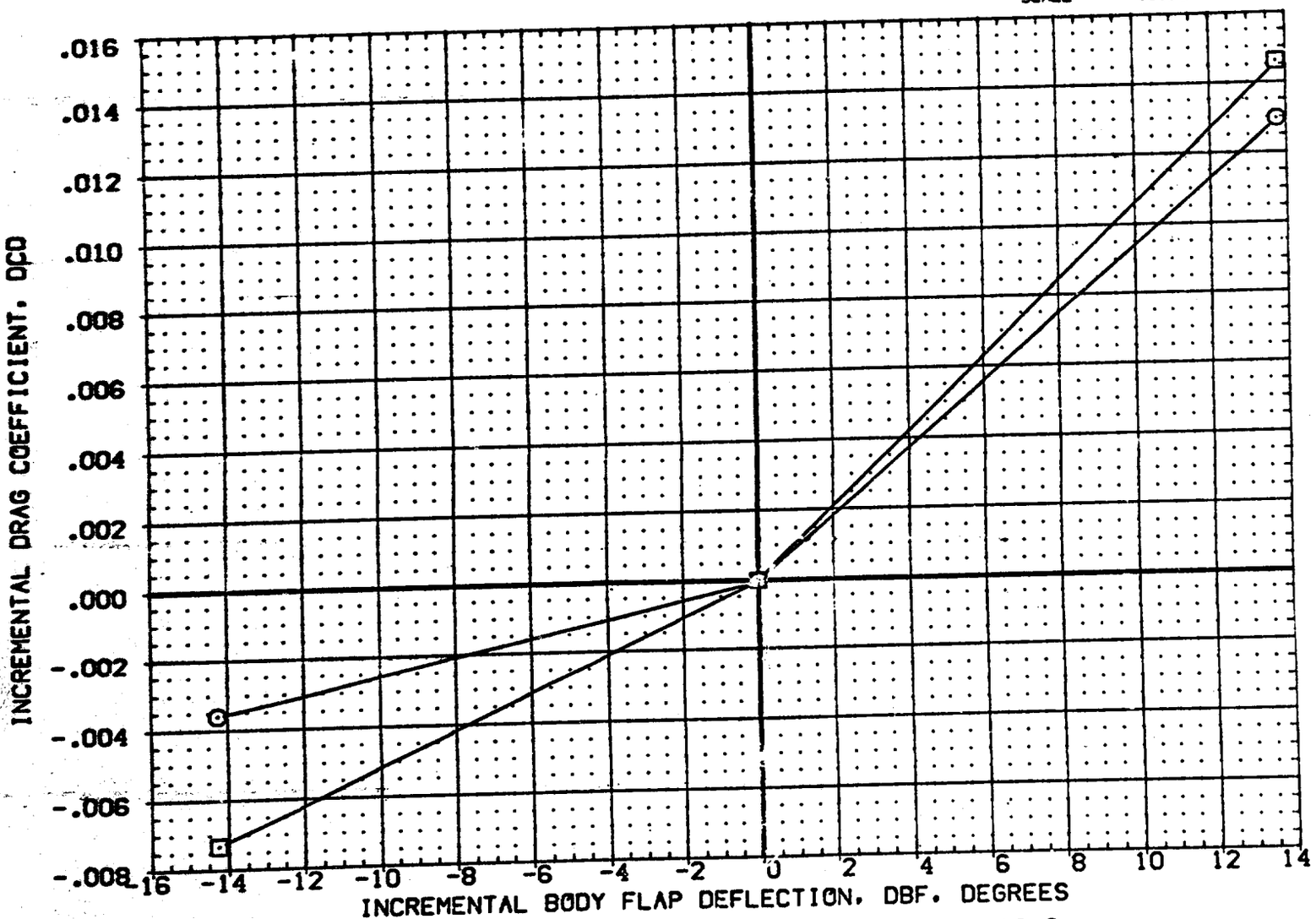


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	2.000	MACH	10.300	DE .000	DATASET	DBF	DATASET	DBF .000	SREF	.6050	SQ.FT.
□	5.000	BETA	.000	SPOBRK 54.920	SBY017	-14.250	SBY026		LREF	7.1220	IN.
◇	10.000	RUDDER	.000		SBY029	13.750			BREF	14.0500	IN.
△	15.000								XMRP	12.5770	IN.
▷	20.000								YMRP	.0000	IN.
⬠	23.800								ZMRP	6.0000	V.L.
									SCALE	.0150	

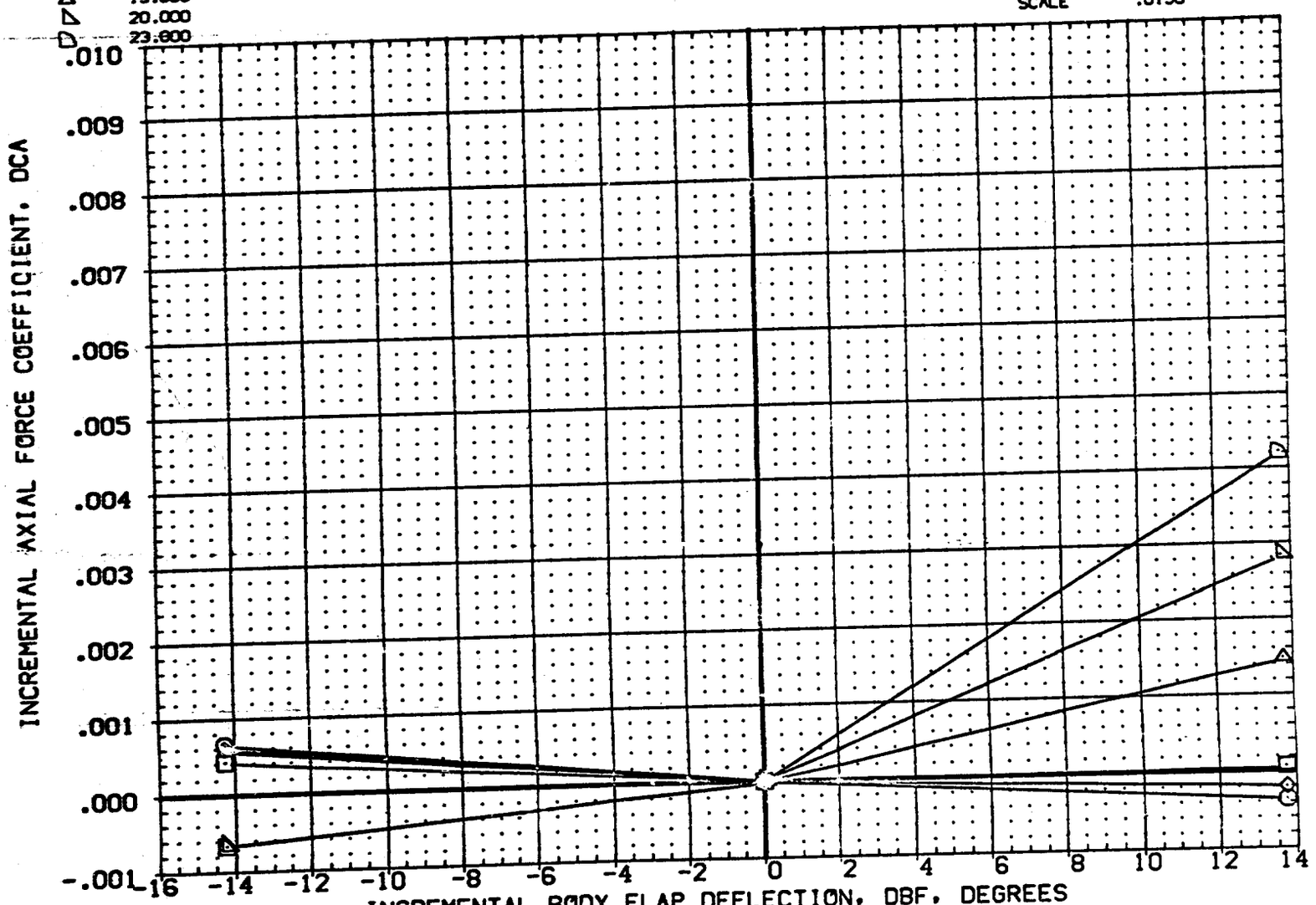


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	27.000	MACH	10.300	DE	.000	DATASET	DBF	DATASET	DBF	SREF	.6050	SQ.FT.
□	30.000	BETA	.000	SPOBRK	54.920	SBY017	-14.250	SBY026	.000	LREF	7.1220	IN.
		RUDDER	.000			SBY029	13.750			BREF	14.0500	IN.
										XMRP	12.5770	IN.
										YMRP	.0000	IN.
										ZMRP	6.0000	V.L.
										SCALE	.0150	

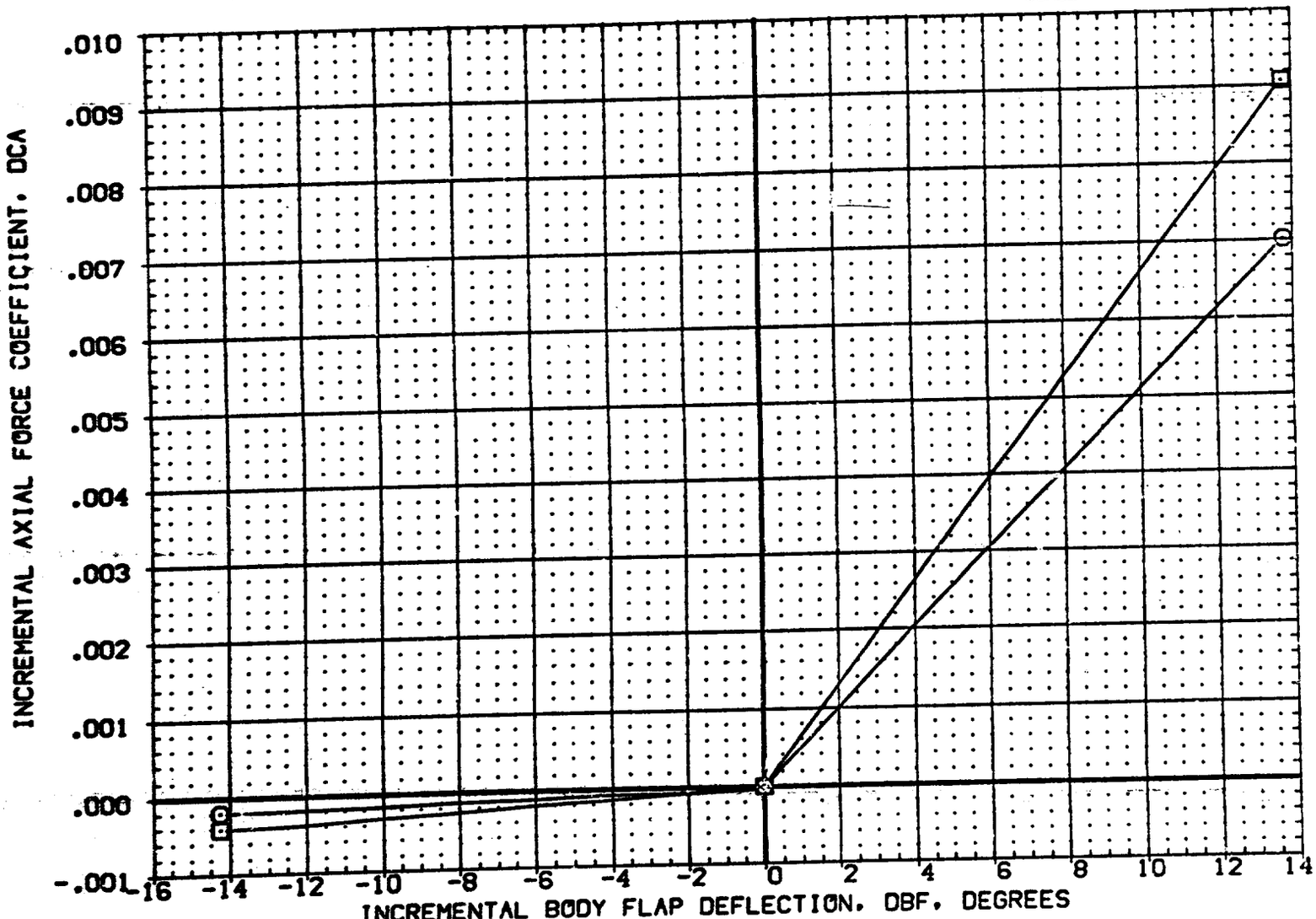


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

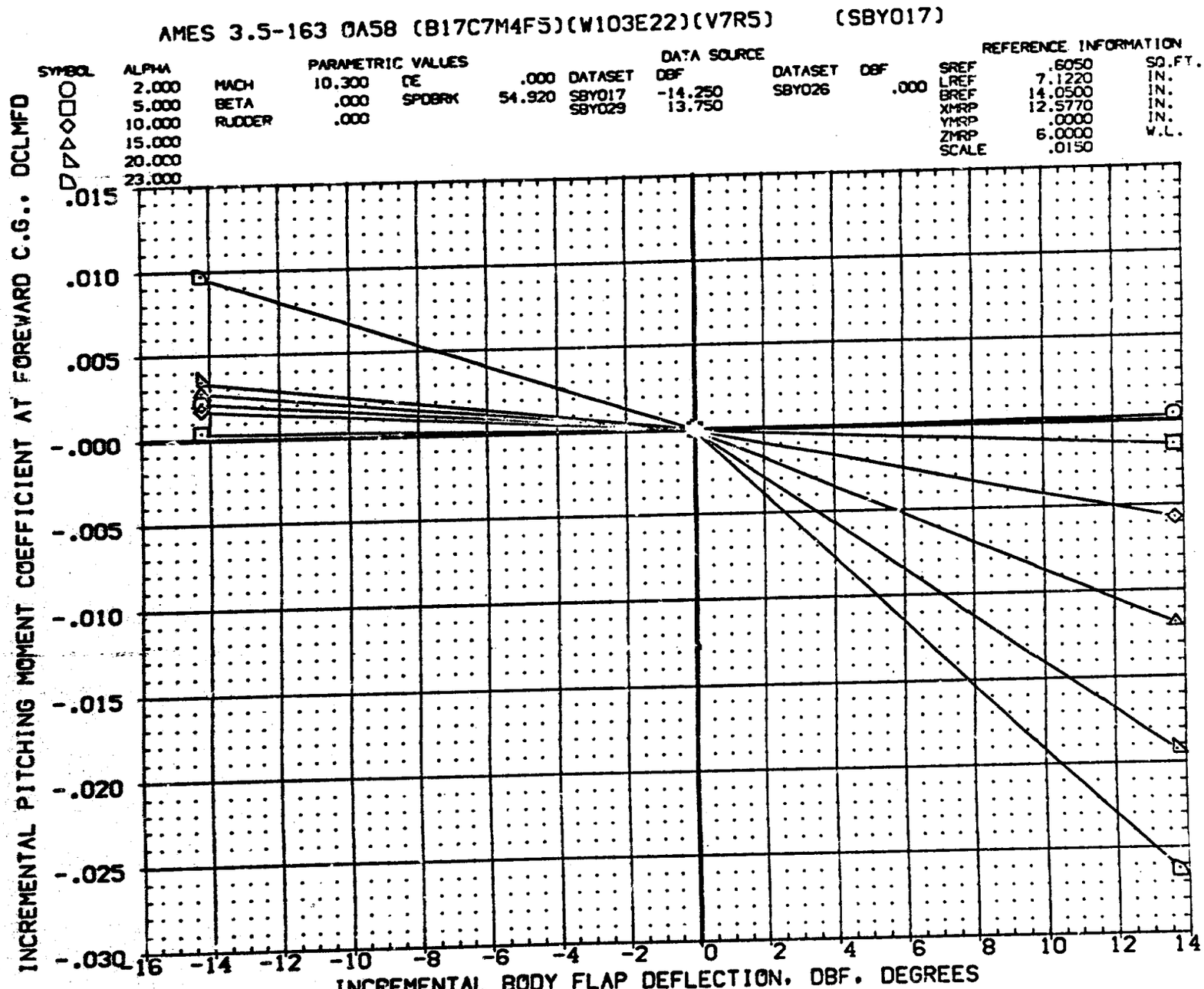


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

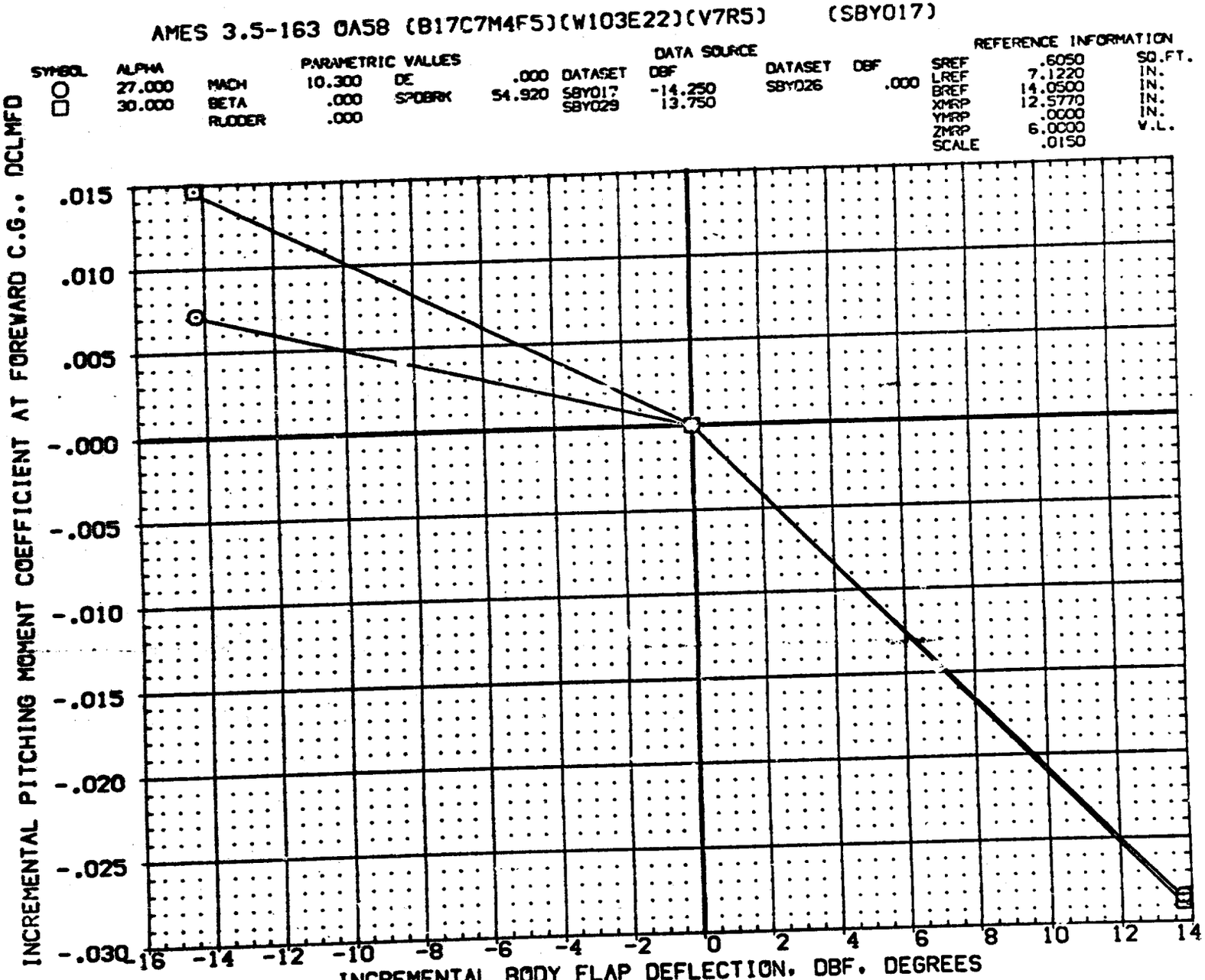


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

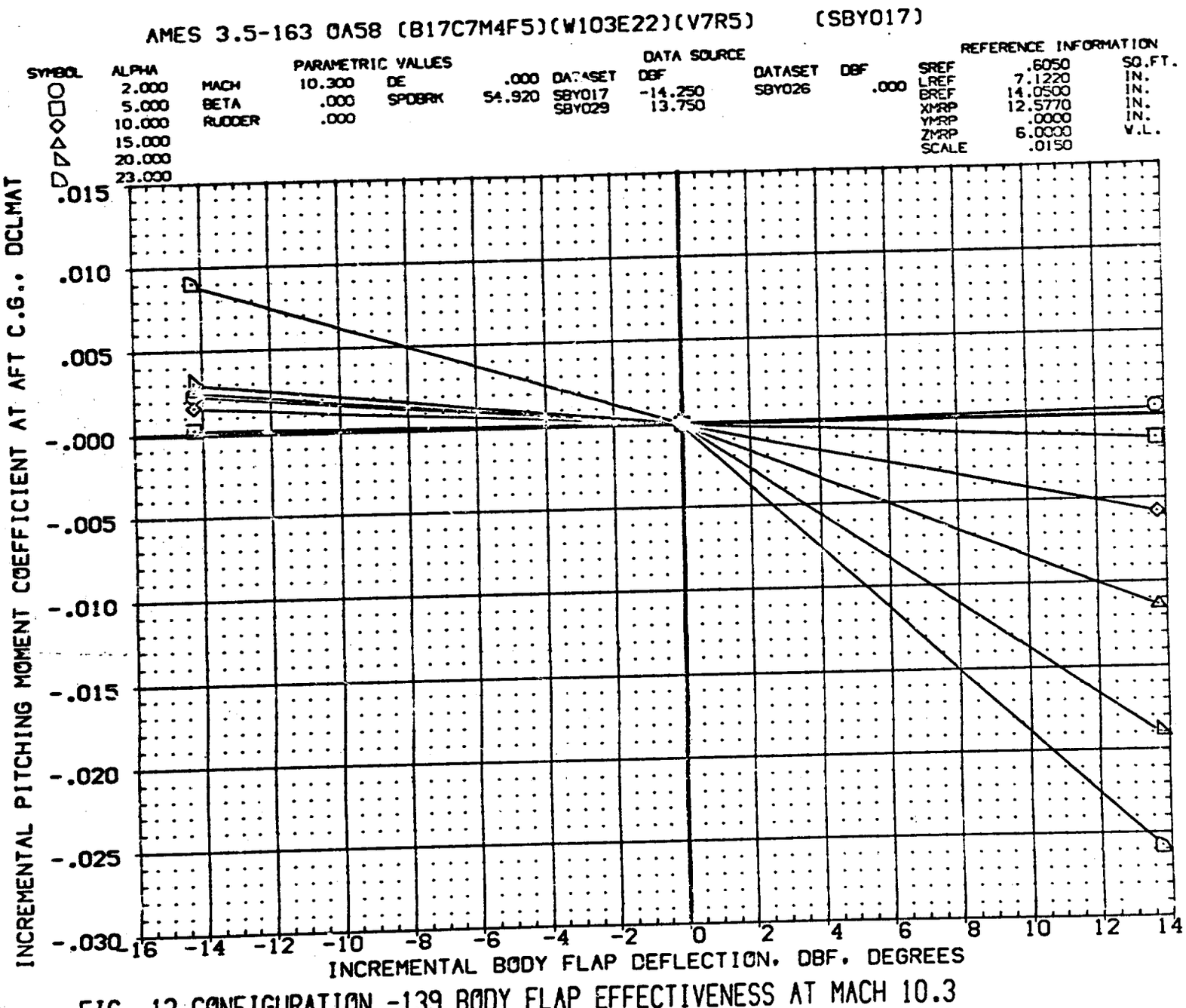


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

AMES 3.5-163 0A58 (B17C7M4F5)(W103E22)(V7R5) (SBY017)

SYMBOL	ALPHA		PARAMETRIC VALUES			DATA SOURCE				
○	27.000	MACH	10.300	DE	.000	DATASET	DBF	DATASET	DBF	.000
□	30.000	BETA	.000	SPOBRK	54.920	SBY017	-14.250	SBY026		
		RUDDER	.000			SBY029	10.750			

REFERENCE INFORMATION

SREF	.6050	SQ.FT.
LREF	7.1220	IN.
BREF	14.0500	IN.
XMRP	12.5770	IN.
YMRP	.0000	IN.
ZMRP	6.0000	W.L.
SCALE	.0150	

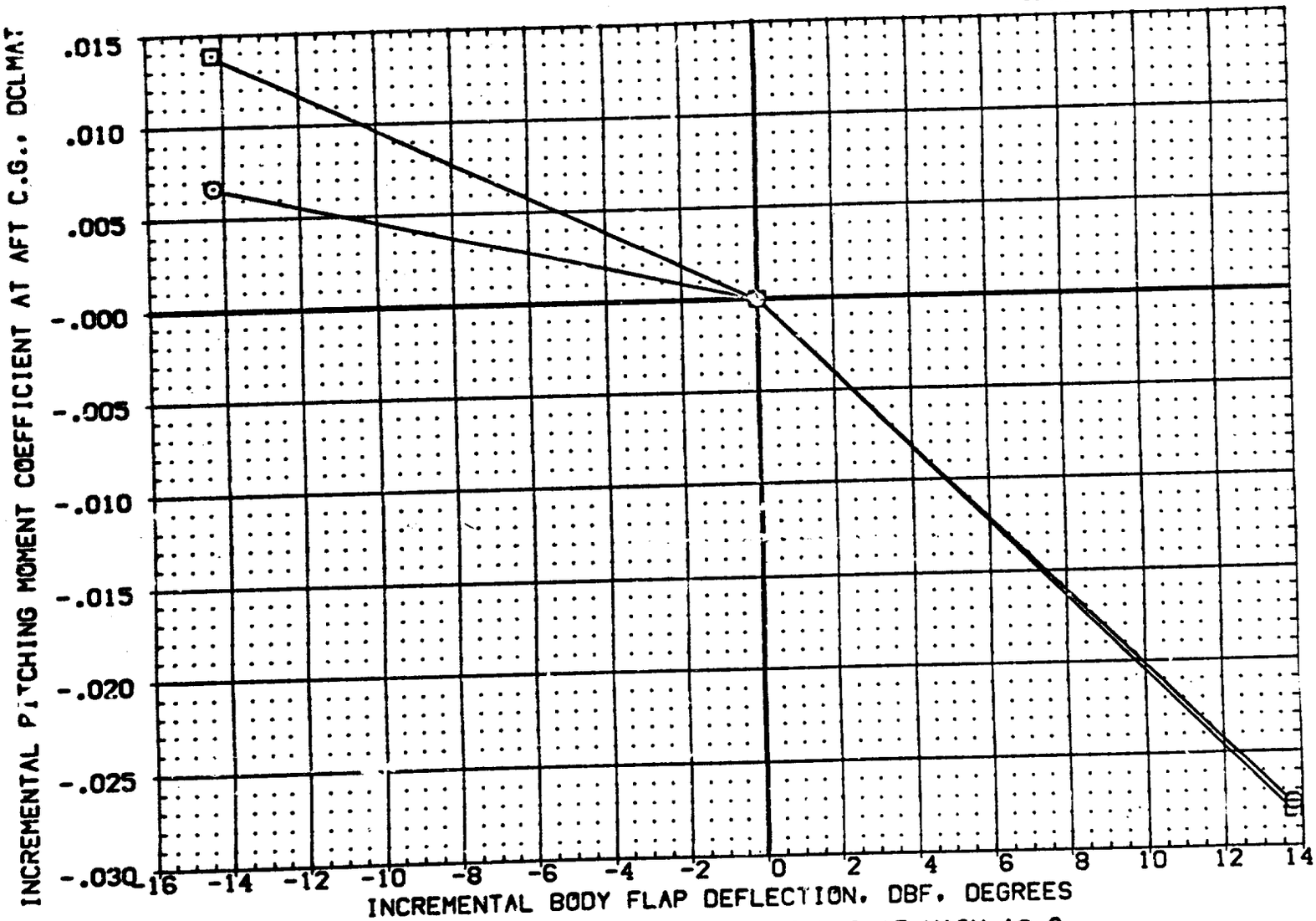


FIG. 13 CONFIGURATION -139 BODY FLAP EFFECTIVENESS AT MACH 10.3

APPENDIX

TABULATED SOURCE DA'A

Tabulations of plotted data are available on request from Data Management Systems

DATE 15 APR 74

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7M4F5) (W107E23) (V7R5)

(XBY001) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.256	24.284	.61936	.06297	-.01766	.53866	.31211	1.72587	.66092	-.03218	-.03772	-.03563
5.256	27.206	.74520	.06010	-.01814	.63528	.39415	1.61177	.65928	-.03243	-.03501	-.03479
5.256	29.911	.87296	.05993	-.02450	.72680	.48725	1.49164	.66065	-.03231	-.03484	-.03437
5.256	34.003	1.05895	.06116	-.03547	.84367	.64291	1.31227	.66265	-.03240	-.03399	-.03438
5.256	38.866	1.28981	.05801	-.05229	.96787	.85452	1.13264	.66525	-.02957	-.03226	-.03344
5.256	43.752	1.51481	.05059	-.06555	1.05923	1.08408	.97707	.66625	-.02957	-.02986	-.03231
5.256	48.654	1.73959	.04774	-.08290	1.10868	1.34138	.82653	.66787	-.02645	-.02955	-.03094
5.256	52.795	1.82424	.04556	-.07688	1.06677	1.48051	.72054	.66584	.00729	.01169	.01114
	GRADIENT	.04388	-.00062	-.00250	.01990	.04238	-.03559	.00020	.00092	.00112	.00102

RUN NO. 0/ 0 RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.320	23.819	.53275	.05337	.00663	.46582	.26397	1.76468	.64574	-.02431	-.02139	-.02344
7.320	26.992	.65478	.05585	.00292	.55810	.34694	1.60863	.64867	-.02631	-.02217	-.02448
7.320	29.773	.77291	.05529	.00105	.64343	.43179	1.49013	.64982	-.02465	-.02051	-.02365
7.320	33.915	.95594	.05425	-.00550	.76303	.57840	1.31922	.65243	-.02491	-.01994	-.02280
7.320	38.674	1.18634	.05382	-.01888	.88982	.78646	1.13143	.65618	-.02231	-.01922	-.02158
7.320	43.762	1.40392	.05174	-.03507	.97815	1.00842	.96998	.65952	-.02091	-.01726	-.02126
7.320	48.900	1.58932	.04758	-.05597	1.00892	1.22893	.82097	.66329	-.00980	.00099	-.00418
7.320	51.054	1.65876	.04257	-.05775	1.00957	1.31683	.76667	.66314	.01642	.02411	.01758
	GRADIENT	.04233	-.00037	-.00254	.02057	.03973	-.03636	.00066	.00109	.00128	.00114

AMES 3.5-163 OA58 (B19C7N4F5) (M10TE23) (V7R5) (XBY002) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0300 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0190		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	-14.250	SPOBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.95 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.256	-2.329	-.09795	.09387	-.02451	-.09406	.09778	-.96198	.55816	-.04025	-.03668	-.03747
5.257	.714	-.04056	.08412	-.02118	-.04161	.08360	-.49764	.45823	-.04119	-.03636	-.03724
5.257	3.778	.01870	.07904	-.01692	.01345	.08010	.16791	1.02293	-.04122	-.03771	-.03833
5.257	6.836	.08451	.07306	-.01533	.07513	.08268	.90886	.71711	-.04104	-.03793	-.03850
5.256	9.806	.15337	.06840	-.01368	.13947	.09352	1.49132	.66318	-.04029	-.03813	-.03911
5.256	13.663	.26226	.06600	-.01267	.23924	.12608	1.89753	.66810	-.04069	-.03936	-.03959
5.256	17.743	.38877	.06303	-.01212	.35107	.17850	1.96672	.66180	-.03909	-.03854	-.04040
5.256	20.911	.49141	.06207	-.01340	.43689	.23338	1.87201	.66036	-.03875	-.03693	-.04024
5.256	23.924	.60294	.06186	-.01554	.52605	.30106	1.74734	.65961	-.03879	-.03838	-.03914
5.256	27.965	.75726	.06164	-.02196	.63995	.40955	1.56256	.66100	-.03716	-.03810	-.03945
5.256	30.836	.86881	.06103	-.02985	.71299	.49672	1.43540	.66300	-.03689	-.03771	-.03876
	GRADIENT	.01911	-.00243	.00092	.01781	-.00269	.18510	.07625	-.00018	-.00017	-.00014

RUN NO. 0/ 0 RN/L = 1.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.320	-2.360	-.10370	.08781	-.03318	-.09997	.09184	-1.08854	.53250	-.01153	-.01333	-.01389
7.320	.680	-.05359	.07876	-.02952	-.05444	.07815	-.69661	.44729	-.01351	-.01419	-.01499
7.320	3.777	-.00181	.07230	-.02273	-.00857	.07203	-.09119	-3.97484	-.01368	-.01497	-.01554
7.320	6.836	.05460	.06858	-.01491	.04641	.07161	.64802	.75087	-.01338	-.01482	-.01559
7.320	9.729	.11096	.06373	-.01030	.09660	.08158	1.20887	.68451	-.01317	-.01539	-.01577
7.320	13.687	.20512	.05931	-.00109	.18524	.10619	1.74437	.65228	-.01300	-.01544	-.01600
7.320	17.747	.32617	.05827	.00313	.29269	.15491	1.89067	.64679	-.01321	-.01513	-.01613
7.320	20.908	.42611	.05844	.00655	.37719	.20666	1.82517	.64465	-.01330	-.01612	-.01659
7.320	23.905	.53077	.05761	.00718	.46189	.26774	1.72516	.64534	-.00952	-.01778	-.01608
7.320	27.999	.67662	.05791	.00992	.57244	.36942	1.54959	.64494	-.01054	-.01408	-.01571
7.320	30.770	.78329	.05813	.00524	.65186	.45580	1.43013	.64789	-.00990	-.01330	-.01466
	GRADIENT	.01655	-.00248	.00170	.01517	-.00321	.16215	-.73564	-.00035	-.00027	-.00030

DATE 15 APR 74 TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7H4F5) (W10YE23) (V7R5) (XBY003) (15 APR 74)

REFERENCE DATA

SREF =	.0050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.256	27.987	.70877	.06825	.02714	.59480	.39111	1.52081	.63622	-.03416	-.03368	-.03489
5.256	31.915	.87710	.06399	.02730	.71068	.51801	1.37195	.63685	-.03368	-.03414	-.03427
5.256	34.976	1.01261	.06285	.02858	.79369	.63196	1.25591	.63992	-.03371	-.03293	-.03410
5.256	37.931	1.13312	.06300	.02492	.85503	.74623	1.14580	.64222	-.03228	-.03258	-.03290
5.256	40.793	1.25436	.05982	.02633	.91057	.86480	1.05292	.64259	-.03167	-.03083	-.03200
5.256	43.722	1.37816	.05699	.02370	.95661	.99371	.96267	.64398	-.02850	-.02810	-.03083
5.257	46.817	1.57420	.05503	.02051	.99514	1.22099	.81503	.64552	-.02402	-.02715	-.02689
5.257	53.994	1.73651	.04934	.03684	.98094	1.43376	.68417	.64250	-.02830	-.02540	-.02658
	GRADIENT	.04003	-.00063	.00011	.01521	.04077	-.03227	.00029	.00034	.00037	.00036

RUN NO. 0/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.320	33.345	.85659	.05154	.04151	.68724	.51390	1.33731	.63247	-.02266	-.01917	-.02232
7.320	35.226	.93748	.05170	.04287	.73599	.58296	1.26247	.63348	-.02230	-.01793	-.02150
7.320	37.235	1.01952	.04972	.04402	.78182	.65647	1.19064	.63442	-.02103	-.01717	-.02011
7.320	38.303	1.07645	.04941	.04351	.81184	.70882	1.14506	.63543	-.01976	-.01621	-.01930
7.320	40.950	1.18450	.04880	.04461	.86264	.81318	1.06083	.63645	-.01798	-.01502	-.01844
7.320	43.084	1.27191	.04785	.04357	.89657	.90344	.99239	.63770	-.01930	-.01487	-.01939
7.320	45.088	1.35211	.04853	.04096	.92025	.99161	.92785	.63916	-.01852	-.01515	-.01806
7.320	48.973	1.50775	.04672	.03894	.95446	1.16812	.81709	.64081	-.01435	-.01160	-.01569
7.320	52.636	1.62136	.04378	.03988	.94457	1.31853	.71638	.64126	.00310	.00624	.00220
	GRADIENT	.04005	-.00056	-.00019	.01392	.04197	-.03191	.00048	.00103	.00098	.00093

DATE 15 APR 74

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7M4F5) (W107E23) (V7R5)

(XBY004) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.82 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
2.034	-.07010	.09331	-.00488	-.07537	.09076	-.80837	.62470	.00184	-.00062	-.00120
6.010	.00116	.07750	.00020	-.00696	.07720	-.09022	.58720	.00158	-.00210	-.00300
10.706	.10337	.06827	.00396	.06926	.06432	1.05864	.62909	.00083	-.00301	-.00351
15.852	.23770	.06114	.01485	.21197	.12374	1.71296	.62731	.00090	-.00259	-.00321
20.582	.36945	.06053	.02445	.34331	.19357	1.77356	.62719	.00076	-.00262	-.00287
23.563	.49517	.06128	.03050	.42938	.25412	1.68966	.62763	.00220	-.00126	-.00269
27.560	.63615	.06355	.03501	.53633	.35160	1.52558	.62911	.00212	.00158	-.00235
30.661	.75762	.06507	.03673	.61837	.44254	1.39731	.63246	.00165	.00250	-.00226
35.671	.93818	.06549	.03951	.72595	.60028	1.20602	.63481	.00023	-.00163	-.00073
40.728	1.13455	.06378	.04538	.81817	.78858	1.03752	.63559	.00072	.00339	-.00018
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

DATE 19 APR 74

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7M4F5) (W107E23) (V7R5) (XBY005) (19 APR 74)

REFERENCE DATA

SREF =	.6030 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0150				

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLN	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.257	-2.268	-.17116	.13106	.01642	-.16584	.13773	-1.20405	.68565	-.03804	-.03414	-.03471
5.257	.604	-.10039	.11637	.01257	-.10201	.11495	-.88741	.69644	-.03794	-.03331	-.03475
5.257	3.903	-.02705	.10379	.01142	-.03406	.10171	-.33483	.80572	-.03734	-.03493	-.03608
5.256	6.944	.04338	.09104	.00835	.03206	.09562	.33523	.57941	-.03787	-.03703	-.03767
5.256	9.784	.11424	.08489	.01040	.09615	.10307	.95229	.61680	-.03850	-.03927	-.03785
5.256	13.636	.21980	.07746	.01262	.19534	.12710	1.53680	.62917	-.03927	-.03760	-.03880
5.256	19.908	.41569	.07102	.01480	.36667	.20831	1.76023	.63720	-.03907	-.03855	-.03933
5.256	23.908	.55278	.06940	.01883	.47722	.28747	1.66006	.63777	-.03910	-.03835	-.03964
5.256	26.936	.65993	.06778	.01880	.55768	.35940	1.55171	.63983	-.03631	-.03743	-.03835
5.256	30.791	.80271	.06633	.02353	.65561	.46790	1.40118	.63952	-.03592	-.03681	-.03861
	GRADIENT	.02335	-.00442	-.00081	.02136	-.00584	.14091	.01948	.00011	-.00013	-.00022

RUN NO. 0/ 0 RN/L = 1.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLN	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.320	-2.313	-.16255	.12533	.00491	-.15736	.13179	-1.19407	.66145	-.00922	-.00821	-.00916
7.320	.725	-.09792	.10371	-.00223	-.09922	.10246	-.96833	.64195	-.01011	-.00831	-.01030
7.320	3.889	-.04412	.09003	-.00125	-.05012	.08663	-.57724	.64002	-.01094	-.00937	-.01118
7.320	6.888	.01929	.07857	.00209	.00975	.08032	.12143	.61041	-.01021	-.01095	-.01171
7.320	9.729	.08016	.07243	.00724	.06677	.08493	.78609	.61706	-.01096	-.01160	-.01237
7.320	13.722	.17661	.06628	.01511	.15584	.10628	1.46655	.61881	-.01045	-.01212	-.01296
7.320	19.886	.35744	.06309	.02789	.31467	.18091	1.73938	.62156	-.00968	-.01314	-.01327
7.320	23.983	.48564	.06162	.03627	.41867	.25369	1.65029	.62281	-.00948	-.01156	-.01274
7.320	26.933	.58222	.06147	.04240	.49123	.31851	1.54224	.62350	-.00842	-.01057	-.01301
7.320	30.765	.72365	.06318	.04718	.58949	.42445	1.38885	.62631	-.00859	-.01053	-.01188
	GRADIENT	.01908	-.00566	-.00098	.01728	-.00725	.09963	-.00343	-.00028	-.00019	-.00033

AMES 3.5-163 OA58 (B19C7M4FS) (M07EE3) (V7R5) (XBY006) (15 APR 74)

REFERENCE DATA

SREF = .6060 SQ.FT. XMRP = 12.3770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0000 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
23.807	.61788	.07254	-.06643	.53580	.31571	1.69714	.68992	-.01574	-.01590	-.01674
26.806	.73712	.07895	-.08208	.63885	.41391	1.54344	.69053	-.01591	-.01662	-.01681
29.788	.86272	.08238	-.09789	.72514	.51005	1.42170	.69107	-.01489	-.01492	-.01643
32.809	1.00783	.08747	-.12161	.85339	.68042	1.25421	.69148	-.01387	-.01358	-.01534
35.806	1.15113	.09449	-.15060	.97665	.90940	1.07395	.69204	-.01319	-.01286	-.01457
43.806	1.55765	.09950	-.17710	1.05424	1.15095	.91597	.69219	-.00971	-.00976	-.01162
48.821	1.79887	.10048	-.20980	1.06313	1.38070	.77004	.69424	.02406	.02805	.02041
51.840	1.91735	.09885	-.30288	1.13027	1.55161	.72835	.70849	.05756	.05563	.05276
GRADIENT	.04716	.00096	-.00731	.02136	.04536	-.03531	.00043	.00210	.00214	.00196

AMES 3.5-163 OA58 (B19C7M4FS) (M07EE3) (V7R5) (XBY001) (15 APR 74)

REFERENCE DATA

SREF = .6060 SQ.FT. XMRP = 12.3770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0000 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.510

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.707	-.03666	.07560	-.03564	-.04221	.07437	-.56782	.34048	-.00299	-.00220	-.00504
5.905	.02910	.08685	-.02971	.02196	.08853	.31586	1.02633	-.00340	-.00304	-.00560
10.848	.13608	.06185	-.03015	.12398	.06675	1.42946	.73072	-.00414	-.00374	-.00660
15.895	.30124	.06402	-.03967	.27194	.14455	1.88130	.69881	-.00445	-.00462	-.00682
20.713	.47403	.07087	-.05869	.41840	.23577	1.78981	.69606	-.00440	-.00569	-.00780
23.736	.59694	.07506	-.07175	.51799	.30999	1.67098	.69443	-.00420	-.00583	-.00674
27.736	.76974	.08213	-.09274	.64305	.43096	1.49214	.69469	-.00445	-.00348	-.00836
30.837	.90532	.08678	-.10644	.73286	.53857	1.36075	.69443	-.00165	-.00546	-.00875
35.919	1.12788	.09284	-.13432	.85894	.73685	1.16570	.69417	.00158	.00394	.00075
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B19C7H4F5) (W107E23) (V7R5) (XBY008) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.79 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.388	-.08886	.08631	-.03091	-.09010	.09214	-.97781	.49372	-.01312	-.01451	-.01575
.696	-.04382	.07967	-.03669	-.04473	.07916	-.56506	.34196	-.01375	-.01491	-.01674
3.735	.00763	.07403	-.03391	.00279	.07437	.03756	2.28686	-.01383	-.01611	-.01678
6.695	.06849	.06826	-.03141	.06079	.07613	.79850	.61680	-.01413	-.01627	-.01724
9.702	.13355	.06707	-.03209	.12032	.06862	1.75775	.73680	-.01362	-.01710	-.01715
13.633	.24519	.06656	-.03656	.22260	.12248	1.81741	.70522	-.01345	-.01694	-.01743
17.607	.37906	.06771	-.04564	.34064	.17921	1.90193	.69466	-.01251	-.01679	-.01706
20.788	.49450	.07172	-.05426	.43693	.24242	1.80240	.69072	-.01290	-.01668	-.01684
23.813	.60919	.07435	-.06425	52731	.31398	1.67945	.68916	-.01196	-.01528	-.01706
27.853	.77615	.08085	-.07968	.64845	.43411	1.49377	.68812	-.01157	-.01528	-.01592
30.722	.89734	.08460	-.09239	.72818	.53115	1.37095	.68823	-.01038	-.01424	-.01629
GRADIENT	.01657	-.00233	.00098	.01517	-.00290	.16568	.29345	-.00012	-.00026	-.00017

AMES 3.5-163 OA58 (B19C7H4F5) (W107E23) (V7R5) (XBY009) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
23.838	.54719	.05671	-.00646	.47759	.27303	1.74923	.65466	-.01199	-.01306	-.01355
27.085	.67829	.05640	-.01079	.57841	.35875	1.61229	.65617	-.01275	-.01337	-.01495
29.847	.80329	.05698	-.01495	.66837	.44921	1.48788	.65717	-.01157	-.01151	-.01323
33.985	.99231	.05592	-.02483	.79155	.60105	1.31695	.65953	-.01034	-.01151	-.01274
38.974	1.22808	.05436	-.04006	.92056	.81468	1.12997	.66233	-.00758	-.00935	-.01129
43.730	1.44980	.05309	-.06031	1.01007	1.03971	.97149	.66565	-.00411	-.00677	-.00775
48.936	1.63531	.04846	-.08187	1.03771	1.26481	.82045	.66875	.01981	.02622	.01965
51.001	1.69058	.04642	-.09040	1.02781	1.34306	.76527	.67001	.03656	.04673	.04166
GRADIENT	.04325	-.00037	-.00319	.02094	.04066	-.03623	.00058	.00157	.00184	.00167

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7N4F5) (W107E23) (V7R5) (XBY010) (15 APR 74)

REFERENCE DATA

SREF =	.6090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0190		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 2.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.981	-.03354	.07259	-.02621	-.03603	.07139	-.50474	.36255	.00101	-.00353	-.00396
5.932	.02997	.06411	-.01665	.01921	.06645	.28908	.91477	.00049	-.00244	-.00493
10.728	.12581	.05754	-.00857	.11300	.07997	1.41305	.67539	.00052	-.00420	-.00498
15.618	.27346	.05569	-.00447	.24792	.12812	1.93503	.65633	.00072	-.00491	-.00473
20.523	.42984	.05591	-.00161	.38296	.20306	1.88595	.65170	.00030	-.00410	-.00439
23.461	.54098	.05651	-.00508	.47376	.26721	1.77299	.65376	.00144	-.00310	-.00396
27.320	.69601	.05802	-.01034	.59222	.37398	1.58359	.65577	.00136	-.00006	-.00371
30.539	.83305	.05851	-.01784	.68776	.47569	1.45191	.65820	.00238	-.00124	-.00254
35.329	1.02922	.05806	-.03548	.80386	.64534	1.24563	.66301	.00124	.00165	-.00184
40.867	1.23287	.05768	-.04791	.91273	.86020	1.06107	.66440	.00356	.00533	.00282
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B19C7N4F5) (W107E23) (V7R5) (XBY011) (15 APR 74)

REFERENCE DATA

SREF =	.6090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0190		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.490	-.10485	.08750	-.03303	-.10102	.09190	-1.09917	.53432	-.00814	-.00851	-.00858
.678	-.05318	.07875	-.02781	-.05411	.07811	-.69274	.45775	-.00996	-.01052	-.01021
3.735	-.00641	.07265	-.02275	-.01115	.07205	-.15471	-.65689	-.00988	-.01074	-.01049
8.816	.05205	.06693	-.01741	.04374	.07263	.60215	.77352	-.00991	-.01109	-.01075
9.738	.10914	.06299	-.01082	.09691	.08054	1.20331	.69617	-.00976	-.01121	-.01081
13.718	.21255	.05941	-.00776	.19240	.10812	1.77943	.64375	-.00954	-.01002	-.01095
17.787	.33431	.05842	-.00428	.30054	.15765	1.90638	.65504	-.00992	-.01079	-.01144
20.865	.43190	.05901	-.00103	.38257	.20896	1.83081	.65120	-.00864	-.01225	-.01108
23.879	.54247	.05794	-.00190	.47258	.27257	1.73378	.65181	-.00875	-.01047	-.01148
27.966	.69034	.05826	-.00696	.58228	.37539	1.55112	.65403	-.00692	-.00787	-.01002
30.644	.80571	.05881	-.00981	.66160	.46358	1.42716	.65480	-.00623	-.00958	-.00979
GRADIENT	.01587	-.00240	.00166	.01449	-.00320	.15216	-.19149	-.00028	-.00036	-.00031

AMES 3.5-163 OA58 (B19C7M4F5) (M107E23) (V7R5) (XBY012) (15 APR 74)

REFERENCE DATA

SREF = .6090 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
23.798	.57053	.06003	-.02724	.49780	.28514	1.74577	.66790	-.01547	-.01539	-.01672
26.951	.70381	.06244	-.03650	.59907	.37465	1.59901	.66942	-.01605	-.01723	-.01856
29.736	.82342	.06420	-.04741	.68315	.46417	1.47176	.67152	-.01508	-.01646	-.01802
33.894	1.02103	.06565	-.06158	.81092	.62388	1.29978	.67253	-.01622	-.01425	-.01652
36.875	1.26584	.06828	-.08229	.94231	.84764	1.11205	.67426	-.01219	-.01353	-.01571
43.721	1.49291	.06920	-.10571	1.03112	1.08183	.95313	.67639	-.00940	-.00694	-.01006
48.867	1.67552	.06423	-.12862	1.05332	1.30461	.80738	.67859	.02027	.01891	.01659
51.056	1.73696	.06478	-.14189	1.04266	1.39325	.74838	.68036	.03290	.04171	.03622
GRADIENT	.04405	.00016	-.00421	.02074	.04190	-.03634	.00043	.00158	.00177	.00166

AMES 3.5-163 OA58 (B19C7M4F5) (M107E23) (V7R5) (XBY013) (15 APR 74)

REFERENCE DATA

SREF = .6090 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.79 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.981	-.03290	.07497	-.02857	-.03547	.07379	-.48065	.33052	-.00168	-.00334	-.00432
5.962	.02831	.06633	-.02061	.02226	.06902	.32251	.90930	-.00169	-.00512	-.00550
10.706	.12774	.06023	-.01490	.11433	.08291	1.37890	.69328	-.00229	-.00507	-.00517
15.892	.27777	.05944	-.01787	.25097	.13305	1.88625	.67400	-.00235	-.00521	-.00520
20.571	.44356	.06213	-.02486	.39345	.21403	1.83833	.67096	-.00219	-.00501	-.00460
23.521	.55996	.06403	-.03247	.48788	.28218	1.72894	.67167	-.00194	-.00394	-.00371
27.556	.71954	.06702	-.04500	.60691	.39229	1.54709	.67335	-.00062	-.00220	-.00344
30.669	.85535	.06983	-.05790	.70009	.49636	1.41044	.67524	.00050	-.00263	-.00119
35.657	1.08390	.07303	-.08929	.83812	.69118	1.21259	.68065	.00262	.00028	-.00117
40.833	1.29604	.07200	-.10611	.93354	.90190	1.03508	.68047	.00588	.00713	.00266
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B19C7N4F5) (W107E23) (V7R5) (XBY014) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.427	-.10251	.09822	-.03648	-.09869	.09248	-1.06706	.51928	-.01391	-.01628	-.01648
.624	-.05706	.07861	-.02679	-.05793	.07796	-.74292	.47745	-.01586	-.01715	-.01788
3.733	-.00528	.07270	-.02336	-.01000	.07221	-.13847	-.97976	-.01593	-.01730	-.01792
6.880	.05224	.06703	-.02025	.04386	.07279	.60262	.79291	-.01585	-.01798	-.01834
9.773	.11249	.06273	-.01670	.10021	.08092	1.23846	.70498	-.01517	-.01783	-.01866
13.692	.21791	.06124	-.01510	.19722	.11108	1.77552	.67584	-.01538	-.01710	-.01861
17.776	.34381	.06031	-.01634	.30698	.16239	1.90272	.66782	-.01533	-.01798	-.01879
20.923	.45274	.05992	-.01740	.40149	.21765	1.84469	.66447	-.01452	-.01694	-.01902
23.997	.55617	.06161	-.02250	.48304	.28247	1.71003	.66521	-.01371	-.01850	-.01911
27.982	.71406	.06349	-.03176	.60093	.39089	1.53732	.66670	-.01241	-.01651	-.01801
30.829	.83207	.06494	-.03801	.68122	.48216	1.41278	.66714	-.01229	-.01558	-.01604
GRADIENT	.01579	-.00252	.00213	.01440	-.00329	.15090	-.24408	-.00033	-.00016	-.00023

AMES 3.5-163 OA58 (B19C7N4F5) (W107E23) (V7R5) (XBY015) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.85 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
2.084	-.03326	.07358	-.02583	-.03582	.07231	-.49675	.36315	.73550	.45935	.63240
6.029	.03096	.06467	-.01735	.02369	.06753	.35067	.65871	.73199	.45434	.62953
10.778	.12676	.05916	-.00781	.11346	.08182	1.38672	.67302	.72888	.45416	.62709
15.905	.27202	.05676	-.00189	.24205	.12912	1.90559	.65287	.72518	.45104	.62378
20.986	.42367	.05595	.00172	.37694	.20134	1.87218	.64882	.72085	.44809	.62005
23.491	.52775	.05601	-.00001	.46089	.26356	1.74870	.65033	.71739	.44758	.61773
27.514	.68485	.05826	-.00499	.58048	.36805	1.57717	.65300	.71628	.44759	.61581
30.617	.81460	.05964	-.00691	.67066	.46820	1.43256	.65344	.71429	.45068	.61441
35.483	1.03331	.06029	-.02593	.80642	.64809	1.24276	.65956	.71716	.44678	.61573
40.681	1.22865	.05702	-.02309	.89457	.84414	1.05974	.65724	.71807	.45442	.62142
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY016) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0300 IN. ZMRP = 6.0030 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RUN NO. 0/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.256	24.109	.68064	.07443	-.06040	.57279	.33787	1.69532	.68398	-.03592	-.03713	-.03832
5.256	27.284	.79671	.07765	-.07262	.67263	.43400	1.54985	.68388	-.03724	-.03727	-.03834
5.256	30.030	.91598	.07710	-.08079	.75444	.52515	1.43662	.68280	-.03817	-.03764	-.03823
5.256	34.090	1.11416	.07994	-.09632	.87814	.69058	1.27197	.68215	-.03651	-.03719	-.03754
5.255	39.021	1.34434	.08541	-.12171	.99067	.91276	1.08535	.68366	-.03374	-.03597	-.03693
5.255	43.853	1.57718	.08813	-.14536	1.07628	1.15624	.93084	.68426	-.03129	-.03327	-.03683
5.255	49.008	1.77609	.08854	-.14201	1.09817	1.39870	.78514	.67978	-.02767	-.02965	-.03210
5.253	52.893	1.84533	.08232	-.12534	1.04606	1.52242	.68710	.67533	.00732	.01282	.00683
	GRADIENT	.04306	.00041	-.00282	.01786	.04288	-.03502	-.00021	.00108	.00116	.00101

RUN NO. 0/ 0 RN/L = 1.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.320	27.401	.74275	.07236	-.04334	.62613	.40606	1.54196	.67180	-.00382	-.00920	-.00818
7.320	30.070	.85568	.07517	-.05299	.70286	.49379	1.42339	.67312	-.00361	-.00832	-.00814
7.320	34.106	1.03716	.07761	-.06145	.81525	.64582	1.26236	.67214	-.00250	-.00676	-.00608
7.320	39.024	1.25488	.07957	-.07909	.92478	.85195	1.08549	.67353	-.00249	-.00519	-.00681
7.320	43.800	1.45829	.08162	-.10233	.99604	1.06826	.93239	.67616	-.00131	-.00176	-.00399
7.320	48.690	1.65521	.07928	-.12567	1.02859	1.29924	.79169	.67828	.00691	.01125	.00584
7.320	52.905	1.73761	.08283	-.12107	.98196	1.43593	.68385	.67598	.02556	.03315	.02606
	GRADIENT	.04036	.00034	-.00340	.01511	.04148	-.03350	.00022	.00090	.00140	.00109

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY017) (29 MAR 74)

REFERENCE DATA

BREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
2.000	-.01641	.07138	-.03292	-.01890	.07076	-.26702	-.08832	-.00354	-.00470	-.00577
6.025	.04963	.06463	-.02975	.04257	.06948	.61268	.67107	-.00421	-.00585	-.00627
10.001	.15816	.06139	-.02560	.14365	.08994	1.59937	.70991	-.00405	-.00595	-.00674
15.074	.30395	.06281	-.02670	.27523	.14336	1.91987	.68509	-.00389	-.00613	-.00699
20.359	.47048	.06694	-.03492	.41701	.22790	1.82976	.67765	-.00318	-.00632	-.00602
23.545	.58109	.07031	-.03720	.50462	.29658	1.70145	.67389	-.00262	-.00512	-.00530
27.549	.74843	.07526	-.05672	.62875	.41290	1.52275	.67823	-.00052	-.00497	-.00555
30.613	.87850	.07908	-.06158	.71407	.51441	1.38813	.67619	-.00205	-.00401	-.00289
40.726	1.29976	.08530	-.10034	.92935	.91267	1.01828	.67875	.00341	.00550	.00159
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY018) (29 MAR 74)

REFERENCE DATA

BREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.355	-.08978	.08231	-.03440	-.08632	.08593	-1.00449	.50921	-.01537	-.01657	-.01641
.711	-.04066	.07457	-.03278	-.04160	.07406	-.56170	.35359	-.01631	-.01740	-.01741
3.663	.01183	.06820	-.02994	.00721	.06864	.10468	1.58253	-.01652	-.01782	-.01782
6.890	.06554	.06469	-.02836	.05730	.07209	.79485	.79845	-.01613	-.01823	-.01791
9.749	.13555	.06368	-.02758	.12281	.08571	1.43282	.72524	-.01630	-.01761	-.01809
13.682	.24152	.06289	-.02620	.21977	.11827	1.85819	.69026	-.01587	-.01675	-.01828
17.706	.36989	.06539	-.02917	.33247	.17480	1.90200	.67936	-.01523	-.01865	-.01846
20.865	.47568	.06739	-.03074	.42048	.23239	1.80934	.67411	-.01493	-.01958	-.01837
23.907	.58015	.06991	-.03461	.50204	.29902	1.67896	.67229	-.01523	-.01781	-.01814
26.070	.73705	.07276	-.04285	.61612	.41102	1.49898	.67172	-.01450	-.01729	-.01795
30.811	.85018	.07486	-.04594	.69182	.49977	1.38426	.67022	-.01357	-.01564	-.01719
GRADIENT	.01634	-.00227	.00072	.01504	-.00274	.17653	.17362	-.00018	-.00020	-.00023

AMES 3.5-163 OAS8 (B17C7N4FS) (W103E22) (V7R5) (XBY019) (29 MAR 74)

REFERENCE DATA

SREF =	.6090 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0300 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0150				

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.72 GRADIENT .NTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
5.296	29.016	.76079	.08082	-.01610	.65376	.42852	1.47086	.65811	-.04686	-.04337	-.04563
5.296	31.869	.93191	.08532	-.01867	.74615	.50479	1.32110	.65770	-.04636	-.04378	-.04445
5.296	34.887	1.08067	.08831	-.02267	.81823	.68068	1.20807	.65819	-.04506	-.04261	-.04399
5.296	37.911	1.16796	.08869	-.02813	.86277	.79980	1.10360	.65804	-.04678	-.04311	-.04478
5.296	40.785	1.30172	.08072	-.02921	.92635	.91901	1.00799	.65859	-.04581	-.04166	-.04418
5.296	43.717	1.42451	.08752	-.03677	.98808	1.04773	.92494	.65982	-.04472	-.04046	-.04184
5.296	46.802	1.62205	.08985	-.02753	1.00071	1.27973	.78197	.65657	-.04189	-.03894	-.04015
5.297	53.976	1.73180	.08882	.00542	.94887	1.45287	.65159	.64916	-.04437	-.03670	-.03963
	GRADIENT	.03643	.00026	.00337	.01274	.04051	-.03165	-.00025	.00014	.00027	.00024

RUN NO. 0/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
7.380	29.167	.71627	.07885	.00089	.59531	.40599	1.46776	.64966	-.00885	-.01311	-.01351
7.380	32.021	.87425	.07995	.00276	.68683	.53139	1.31526	.64915	-.00878	-.01181	-.01131
7.380	35.144	1.00229	.08220	.00360	.77226	.64417	1.19865	.64[illegible]	-.00834	-.01008	-.01048
7.380	37.981	1.11257	.08478	.00171	.82477	.75150	1.09749	.64975	-.00464	-.00733	-.01145
7.380	40.842	1.22773	.08526	.00025	.87304	.86741	1.00650	.65025	-.00637	-.00686	-.01229
7.380	43.043	1.34472	.08478	-.00355	.91114	.99261	.91792	.65128	-.00888	-.00426	-.01118
7.380	48.804	1.52982	.08536	-.01325	.94127	1.20899	.77856	.65351	-.00578	-.00318	-.00950
7.380	54.026	1.65217	.08739	.00423	.88804	1.37222	.64715	.64936	.00633	.01486	.01001
	GRADIENT	.03646	.00037	-.00024	.01202	.03843	-.03155	.00006	.00045	.00091	.00064

AMES 3.5-163 OA58 (B17C7M4F5) (M103E22) (V7R5) (XBY020) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = -44.000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.995	-.04885	.08471	-.01443	-.05178	.08295	-.62401	.34155	-.00343	-.00563	-.00637
6.013	.02349	.07225	-.01454	.01579	.07431	.21243	.87839	-.00496	-.00639	-.00779
10.735	.13353	.06439	-.01056	.11909	.08872	1.34224	.67943	-.00468	-.00696	-.00729
15.695	.27568	.06505	-.00615	.24732	.13806	1.79135	.65853	-.00445	-.00620	-.00696
20.573	.42665	.06804	-.00352	.37525	.21437	1.75047	.65336	-.00383	-.00763	-.00763
23.563	.53010	.07259	-.00398	.45688	.27845	1.64082	.65308	-.00363	-.00540	-.00641
27.541	.66394	.07821	-.00340	.57028	.38559	1.47899	.65215	-.00272	-.00472	-.00670
30.659	.79687	.08060	-.00581	.64427	.47585	1.35393	.65300	-.00053	-.00410	-.00494
40.754	1.16446	.08540	-.01073	.85456	.82277	1.03863	.65365	.00089	.00099	-.00072
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (M103E22) (V7R5) (XBY021) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = -44.000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.313	-.14881	.11923	-.00031	-.14367	.12514	-1.14966	.64881	-.01432	-.01604	-.01611
.686	-.08070	.09796	-.01022	-.08187	.09699	-.84416	.60366	-.01513	-.01651	-.01698
3.604	-.01529	.08432	-.01308	-.02085	.08312	-.25085	.33536	-.01505	-.01656	-.01730
8.862	.05097	.07802	-.01176	.04152	.08156	.50908	.73530	-.01517	-.01765	-.01766
9.780	.11284	.07053	-.00982	.09925	.08863	1.11979	.68236	-.01530	-.01802	-.01803
13.620	.21570	.06843	-.00911	.19352	.11730	1.64974	.66587	-.01500	-.01817	-.01821
19.868	.39923	.07035	-.00415	.35156	.20164	1.74178	.65414	-.01397	-.01905	-.01885
23.789	.53218	.07240	.00040	.45728	.28171	1.62323	.65004	-.01436	-.01728	-.01871
28.901	.64253	.07590	.00173	.53866	.35840	1.50298	.64932	-.01368	-.01660	-.01875
30.766	.77746	.08007	.00191	.62708	.46650	1.34421	.64941	-.01109	-.01764	-.01752
GRADIENT	.02182	-.00570	-.00203	.02011	-.00685	.14721	-.05147	-.00012	-.00009	-.00019

AMES 3.5-163 OA58 (B17C7H4F5) (W103E22) (V7R5) (XBY022) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0300 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
24.368	.70249	.09195	-.11451	.60197	.37360	1.61126	.71034	-.00666	-.01202	-.01200
27.292	.84379	.09840	-.132 7	.70475	.47434	1.48575	.70810	-.00601	-.01206	-.01217
29.953	.96484	.10531	-.15192	.78339	.57297	1.36724	.70830	-.00558	-.00967	-.01039
34.055	1.16136	.11474	-.18077	.89795	.74543	1.20461	.70764	-.00430	-.00754	-.00834
38.947	1.39941	.12568	-.21433	1.00935	.97742	1.03267	.70672	-.00036	-.00223	-.00564
43.780	1 61148	.13518	-.2-983	1.06997	1.21257	.88240	.70741	.00534	.00765	.00172
48.616	1.81096	.13481	-.28899	1.09103	1.45169	.75155	.70908	.03425	.03636	.02910
52.854	1.91050	.14046	-.29700	1.04170	1.60767	.64796	.70756	.04822	.05175	.04875
GRADIENT	.04384	.00174	-.00675	.01646	.04454	-.03380	-.00004	.00182	.00217	.00196

AMES 3.5-163 OA58 (B17C7H4F5) (W103E22) (V7R5) (XBY023) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0300 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.976	-.01193	.07422	-.03874	-.01448	.07376	-.19630	-.54590	.00108	-.00525	-.00548
5.971	.06235	.06927	-.04214	.05481	.07538	.72713	.89920	-.00117	-.00401	-.00485
10.679	.18148	.06841	-.05365	.16566	.10086	1.64253	.75919	-.00070	-.00377	-.00511
15.796	.35479	.07607	-.07462	.32068	.16979	1.98867	.72777	-.00109	-.00396	-.00477
20.572	.54130	.08699	-.10317	.47622	.27165	1.75306	.72051	-.00014	-.00396	-.00431
23.466	.66638	.09571	-.12311	.57499	.35395	1.62451	.71815	-.00139	-.00314	-.00426
27.492	.84908	.1[illegible]90	-.15126	.70431	.48590	1.44951	.71592	-.00021	-.00381	-.00501
30.581	.98357	.11384	-.16974	.78885	.59840	1.31828	.71387	-.00257	.00075	-.00274
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY024) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.309	-.07522	.06156	-.03958	-.07188	.08453	-.85034	.45805	-.01218	-.01398	-.01410
.767	-.02659	.07437	-.04119	-.02759	.07401	-.37272	.07990	-.01383	-.01536	-.01632
3.831	.03711	.07119	-.04292	.03227	.07351	.43894	1.07629	-.01387	-.01598	-.01641
6.911	.10036	.06774	-.04692	.09148	.07932	1.15325	.82247	-.01374	-.01635	-.01669
9.788	.16904	.06747	-.05184	.15511	.09522	1.62897	.76325	-.01379	-.01625	-.01641
13.681	.28456	.07297	-.06734	.25922	.13621	1.87560	.73746	-.01340	-.01636	-.01651
17.747	.42946	.07830	-.08434	.38420	.20517	1.87254	.72280	-.01276	-.01547	-.01720
20.818	.54599	.08621	-.10041	.47971	.27462	1.74680	.71804	-.01250	-.01636	-.01092
23.894	.66670	.09129	-.11574	.57259	.35351	1.61974	.71425	-.01130	-.01479	-.01656
27.933	.83651	.10013	-.13570	.69215	.48032	1.44103	.71005	-.01044	-.01448	-.01605
30.718	.96217	.10566	-.15083	.77319	.58232	1.32777	.70805	-.00911	-.01354	-.01505
GRADIENT	.01830	-.00169	-.00053	.01696	-.00180	.20998	.10089	-.00027	-.00053	-.00038

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY025) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.42 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
24.332	.62816	.06989	-.05026	.54357	.32249	1.68553	.67978	-.01028	-.00840	-.01327
27.279	.75499	.07300	-.05761	.63756	.41091	1.55159	.67842	-.00892	-.00932	-.01177
30.003	.88189	.07584	-.06702	.72579	.50666	1.43251	.67830	-.00548	-.00578	-.00912
34.093	1.07321	.07841	-.08311	.84480	.66631	1.26750	.67883	-.00473	-.00245	-.00745
38.972	1.30161	.08162	-.10774	.98061	.88206	1.08903	.68080	-.00401	.01179	-.00859
43.714	1.50697	.08699	-.13515	1.02912	1.10428	.93194	.68285	-.00134	.01590	-.00439
48.826	1.71188	.08253	-.16419	1.06490	1.34288	.79299	.68564	.01769	.03242	.01165
52.826	1.79868	.08720	-.15068	1.01735	1.48588	.68468	.58117	.03493	.04351	.03213
GRADIENT	.04239	.00057	-.00415	.01792	.04214	-.03508	.00018	.00134	.00189	.00130

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY026) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.87 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
2.011	-.01830	.07071	-.03510	-.02078	.07003	-.29668	-.05593	-.00564	-.00548	-.00707
6.051	.05298	.06420	-.02986	.04592	.06942	.66140	.85786	-.00553	-.00620	-.00741
10.824	.16152	.06075	-.02774	.14724	.08998	1.63630	.71356	-.00536	-.00595	-.00770
15.897	.31099	.06220	-.03138	.28206	.14501	1.94509	.68748	-.00520	-.00619	-.00762
20.573	.47933	.06770	-.03936	.42497	.23182	1.83317	.68055	-.00424	-.00575	-.00697
23.565	.59518	.07092	-.04754	.51720	.30296	1.70717	.67973	-.00594	-.00718	-.00629
27.553	.75623	.07548	-.06416	.63554	.41673	1.52508	.68156	-.00431	-.00545	-.00616
30.545	.88927	.07950	-.07813	.72546	.52041	1.39403	.68267	-.00180	-.00241	-.00332
40.724	1.32136	.08814	-.12095	.94391	.92887	1.01619	.68405	.00084	.00310	-.00131
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY027) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.358	-.08538	.08315	-.03719	-.06188	.08660	-.94558	.46990	-.00484	-.01566	-.01652
.677	-.04155	.07454	-.03385	-.04243	.07405	-.57303	.35051	-.00585	-.01633	-.01765
3.789	.01328	.06793	-.03172	.00879	.06866	.12799	1.52982	-.00616	-.01735	-.01791
7.070	.07551	.06497	-.02880	.06694	.07377	.90736	.79079	-.00596	-.01793	-.01810
9.738	.13951	.06260	-.02660	.12688	.08549	1.48409	.72053	-.00551	-.01721	-.01810
13.767	.24450	.06310	-.03018	.22246	.11947	1.86210	.69577	-.00567	-.01788	-.01833
17.759	.36946	.06478	-.03349	.33209	.17438	1.90442	.68370	-.00511	-.01741	-.01842
20.865	.48283	.06614	-.03574	.42761	.23377	1.82917	.67756	-.00578	-.01777	-.01846
23.906	.58781	.06945	-.04008	.50923	.30170	1.68790	.67543	-.00468	-.01793	-.01833
27.981	.74856	.07357	-.05179	.62654	.41618	1.50543	.67580	-.00409	-.01393	-.01732
30.782	.86408	.07592	-.05986	.70349	.50744	1.38635	.67583	-.00201	-.01558	-.01741
GRADIENT	.01611	-.00248	.00089	.01480	-.00292	.17538	.17040	-.00021	-.00028	-.00023

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY028) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.3770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
24.363	.64713	.07609	-.06836	.55612	.33626	1.65976	.68922	-.01001	-.01148	-.01390
27.239	.77965	.08021	-.08660	.65648	.42816	1.53325	.69122	-.00973	-.00904	-.01268
29.984	.90612	.08428	-.09647	.74273	.52583	1.41250	.69034	-.00982	-.00920	-.01134
34.021	1.10485	.08947	-.11578	.86568	.69231	1.25042	.68891	-.00850	-.00723	-.01115
38.865	1.33204	.09850	-.15518	.97535	.91254	1.06883	.69322	-.00607	-.00413	-.01087
43.709	1.56629	.09934	-.17875	1.06236	1.15521	.91962	.69234	-.00464	-.00473	-.00853
48.770	1.76269	.10111	-.21439	1.08572	1.39230	.77980	.69511	.01108	.01100	.00644
52.784	1.84839	.09915	-.19747	1.03898	1.53195	.67821	.68966	.03272	.03454	.02400
GRADIENT	.04391	.00069	-.00517	.01821	.04357	-.03460	.00009	.00123	.00127	.00108

AMES 3.5-163 OA58 (B17C7M4F5) (W103E22) (V7R5) (XBY029) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.3770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
1.940	-.01726	.07046	-.03479	-.01963	.06984	-.28110	-.09215	-.00251	-.00383	-.00461
5.977	.05199	.06456	-.03209	.04500	.06944	.64803	.67765	-.00317	-.00411	-.00541
10.718	.15877	.06062	-.03429	.14473	.08909	1.62454	.72985	-.00345	-.00392	-.00478
15.836	.31852	.06396	-.04425	.28859	.14845	1.94468	.70147	-.00294	-.00435	-.00579
20.590	.48672	.07078	-.06004	.43075	.23741	1.81440	.69575	-.00277	-.00406	-.00536
23.547	.60445	.07547	-.07469	.52397	.31067	1.68659	.69582	-.00150	-.00405	-.00371
27.540	.77067	.08267	-.09249	.64502	.42982	1.50068	.69451	-.00079	-.00218	-.00333
30.689	.90673	.08913	-.10796	.73597	.54044	1.36160	.69407	.00108	-.00131	-.00084
40.783	1.33401	.09645	-.16486	.94579	.94592	.99986	.69583	.00700	.00788	.00497
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

TABULATED SOURCE DATA FOR CASE (ARC 3.5-163)

AMES 3.5-163 CASE (B17C7W4F5) (W103E22) (V7R5) (XBY030) (29 MAR 74)

REFERENCE DATA

SREF =	.6090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	8.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	CN	CA	CLM	CL	CD	L/D	XCP/L1	CP1	CP3	CP4
-2.305	-.07587	.08168	-.03875	-.07253	.08467	-.85653	.48224	-.01391	-.01395	-.01310
.678	-.02853	.07390	-.03620	-.02945	.07356	-.40037	.18386	-.01493	-.01509	-.01405
3.824	.02501	.06849	-.03626	.02036	.07040	.28923	1.18421	-.01468	-.01483	-.01419
6.696	.06420	.06450	-.03402	.07585	.07414	1.02299	.79912	-.01463	-.01462	-.01433
9.774	.14589	.06369	-.03638	.13298	.08755	1.51895	.74216	-.01429	-.01509	-.01469
13.640	.25778	.06822	-.04179	.23512	.12417	1.89355	.71002	-.01408	-.01519	-.01442
17.766	.38795	.06670	-.04956	.34910	.18190	1.91917	.69736	-.01395	-.01540	-.01497
20.851	.49728	.07021	-.05618	.43972	.24262	1.81242	.69192	-.01305	-.01582	-.01451
23.949	.61249	.07533	-.06543	.52918	.31747	1.66687	.68966	-.01317	-.01409	-.01501
27.965	.77311	.07974	-.08105	.64722	.43590	1.49161	.68883	-.01189	-.01420	-.01474
30.678	.89778	.08439	-.09490	.72720	.53317	1.36393	.68925	-.01176	-.01347	-.01410
GRADIENT	.01646	-.00208	.00040	.01516	-.00232	.18725	.11967	-.00012	-.00014	-.00018

AMES 3.5-163 OA50 (B19C7N4F5) (M107E23) (V7R5) (YBY001) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1720 IN.	YMRP =	.0000 IN.		
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0150				

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	-14.250	SPDBRK =	84.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.256	24.284	.00000	-.00110	-.00151	-.00141
5.256	27.206	.00000	-.00147	-.00209	-.00095
5.256	29.911	.00000	.00085	-.00137	-.00069
5.256	34.003	.00000	.00222	-.00122	-.00181
5.256	38.866	.00000	.00566	-.00151	-.00269
5.256	43.752	.00000	.00986	-.00252	-.00235
5.256	48.654	.00000	.01374	-.00249	-.00333
5.256	52.795	.00000	.01629	-.00347	-.00466
	GRADIENT	.00000	.00069	-.00006	-.00012

RUN NO. 0/ 0 RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.320	23.819	.00000	.00805	-.00143	.00009
7.320	26.992	.00000	.00909	-.00213	-.00012
7.320	29.773	.00000	.01078	-.00155	.00001
7.320	33.915	.00000	.01392	-.00141	-.00014
7.320	38.874	.00000	.01702	-.00072	-.00041
7.320	43.762	.00000	.02055	-.00147	-.00002
7.320	48.900	.00000	.02364	-.00164	-.00062
7.320	51.054	.00000	.02259	-.00242	-.00054
	GRADIENT	.00000	.00058	-.00001	-.00002

AMES 3.5-163 CASE (B19CTN4PS) (A107EE23) (V7.15) (YBYD02) (15 APR 74)

REFERENCE DATA

SREF = .8050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = -14.250 SPDBRK = 54.920
RUDDER = .000

RUN NO. 0/ 0 RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.256	-2.328	.00000	-.00108	.00009	.00033
5.257	.714	.00000	-.00281	-.00052	.00015
5.257	3.778	.00000	-.00232	-.00074	.00009
5.257	6.898	.00000	-.00142	-.00108	.00030
5.256	9.806	.00000	-.00089	-.00172	-.00011
5.256	13.663	.00000	.00181	-.00087	-.00017
5.256	17.743	.00000	.00405	-.00168	-.00026
5.256	20.911	.00000	.00810	-.00092	-.00004
5.256	23.824	.00000	.00809	-.00086	-.00033
5.256	27.965	.00000	.01044	-.00055	-.00075
5.256	30.836	.00000	.01041	-.00135	-.00122
	GRADIENT	.00000	-.00080	-.00014	-.00004

RUN NO. 0/ 0 RN/L = 1.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.383	-2.360	.00000	-.00675	-.00036	.00113
7.380	.680	.00000	-.01038	-.00066	.00096
7.380	3.777	.00000	-.00979	-.00068	.00021
7.380	6.836	.00000	-.00850	-.00144	-.00011
7.380	9.729	.00000	-.00771	-.00111	-.00054
7.380	13.697	.00000	-.00570	-.00188	-.00057
7.380	17.747	.00000	-.00316	-.00188	-.00091
7.380	20.908	.00000	-.00252	-.00299	-.00106
7.380	23.905	.00000	-.00212	-.00331	-.00174
7.380	27.959	.00000	.00069	-.00200	-.00189
7.380	30.770	.00000	-.00027	-.00163	-.00235
	GRADIENT	.00000	-.00017	-.00005	-.00015

DATE 19 APR 74 TABULATED SOURCE DATA FOR OA56 (ARC 3.5-163)

AMES 3.5-163 OA56 (B19C7N4FS) (M107E23) (V7R9) (YBY003) (19 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BOFLAP =	-14.250	SPOBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.256	27.987	.00000	.00262	-.00127	-.00110
5.256	31.915	.00000	.00454	-.00197	-.00053
5.256	34.978	.00000	.00526	-.00130	-.00196
5.256	37.931	.00000	.00805	-.00037	-.00111
5.256	40.793	.00000	.00849	.00092	-.00233
5.256	43.722	.00000	.01234	-.00165	-.00142
5.257	46.817	.00000	.01652	-.00084	-.00091
5.257	53.994	.00000	.01618	-.00320	-.00048
	GRADIENT	.00000	.00059	-.00005	.00001

RUN NO. 0/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.320	33.345	.00000	.00806	.00030	-.00017
7.320	35.226	.00000	.00895	.00109	-.00030
7.320	37.23[illegible]	.00000	.01175	-.00062	-.00095
7.320	[illegible]8.305	.00000	.01364	-.00085	-.00091
7.320	40.950	.00000	.01494	.00059	-.00054
7.320	43.064	.00000	.01550	-.00056	-.00071
7.320	45.066	.00000	.01580	-.00073	-.00118
7.320	48.973	.00000	.01879	-.00058	-.00062
7.320	52.836	.00000	.02072	-.00039	-.00108
	GRADIENT	.00000	.00063	-.00005	-.00005

AMES 3.5-163 OA58 (B19C7H4F5) (M07E23) (V7R5) (YBY004) (15 APR 74)

REFERENCE DATA

SREF =	.6030 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
DOFLAP =	-14.250	SPOBRK =	54.920
RUDDER =	.000		

RN/L = 1.82 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
2.034	.00000	-.00459	-.00115	.00022
6.010	.00000	-.00332	-.00043	.00026
10.706	.00000	-.00068	-.00175	-.00033
15.652	.00000	.00184	-.00032	-.00014
20.582	.00000	.00399	-.00050	-.00059
23.563	.00000	.00710	.00014	-.00025
27.560	.00000	.00857	-.00100	-.00126
30.681	.00000	.00814	-.00254	-.00143
35.671	.00000	.01031	-.00015	-.00106
40.728	.00000	.01466	-.00272	-.00247
GRADIENT	.00000	.00000	.00000	.00000

DATE 15 APR 74 TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7N4FS) (M10TE2S) (V7RS) (YBY00S) (15 APR 74)

REFERENCE DATA

SREF =	.6090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0300 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BOFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RUN NO. D/ D RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.257	-2.268	.00000	-.00452	-.00107	-.00027
5.257	.804	.00000	-.00381	-.00080	.00039
5.257	3.903	.00000	-.00408	-.00048	.00052
5.256	6.944	.00000	-.00311	-.00155	.00019
5.256	9.784	.00000	.00013	-.00052	-.00015
5.256	13.638	.00000	.00060	-.00091	-.00021
5.256	19.906	.00000	.00481	-.00167	-.00057
5.256	23.906	.00000	.00671	-.00146	.00005
5.256	26.936	.00000	.00749	-.00075	-.00044
5.256	30.791	.00000	.00881	-.00105	-.00130
	GRADIENT	.00000	.00007	.00010	.00013

RUN NO. D/ D RN/L = 1.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.320	-2.313	.00000	-.00298	-.00001	.00063
7.320	.723	.00000	-.00278	-.00063	-.00007
7.320	3.809	.00000	-.00297	-.00018	.00034
7.320	6.868	.00000	-.00315	-.00159	.00074
7.320	9.723	.00000	-.00225	-.00031	.00025
7.320	13.722	.00000	.00021	-.00218	.00029
7.320	19.886	.00000	.00393	-.00067	-.00015
7.320	23.963	.00000	.00654	-.00265	.00020
7.320	26.933	.00000	.00803	-.00120	-.00018
7.320	30.765	.00000	.01047	-.00164	-.00019
	GRADIENT	.00000	.00000	-.00003	-.00004

AMES 3.5-163 OA58 (B19C7H4FS) (W107E23) (V7R5) (YBY006) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.12 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
23.807	.00000	.00980	-.00170	-.00012
26.986	.00000	.00978	-.00137	.00014
29.790	.00000	.01110	-.00192	.00024
33.988	.00000	.01367	-.00185	-.00055
38.898	.00000	.01534	-.00370	-.00124
43.856	.00000	.02176	-.00127	-.00015
48.821	.00000	.02273	-.00362	-.00203
51.040	.00000	.02635	-.00253	.00279
GRADIENT	.00000	.00084	-.00005	.00002

AMES 3.5-163 OA58 (B19C7H4FS) (W107E23) (V7R5) (YBY007) (15 APR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = 11.000
BDFLAP = 13.750 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.707	.00000	-.00483	-.00018	.00017
5.995	.00000	-.00580	-.00060	.00017
10.848	.00000	-.00119	-.00218	-.00083
15.995	.00000	.00074	-.00086	-.00082
20.713	.00000	.00348	-.00174	-.00140
25.756	.00000	.00686	-.00137	-.00084
27.736	.00000	.00743	-.00084	-.00013
30.837	.00000	.01088	-.00190	-.00161
35.919	.00000	.01297	-.00192	-.00068
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 CASE (B19C7N4F5) (M07E25) (V7R5) (YBY006) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0190				

PARAMETRIC DATA

BETA =	.000	ELEVON =	11.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.79 GRADIENT INTERVAL = -8.00/ 8.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.366	.00000	-.00833	-.00040	.00043
.656	.00000	-.00888	-.00121	.00008
3.735	.00000	-.00859	-.00092	.00001
6.805	.00030	-.01097	-.00194	.00012
9.702	.00030	-.00731	-.00212	-.00058
13.633	.00000	-.00805	-.00325	-.00059
17.607	.00000	-.00393	-.00290	-.00121
20.709	.00000	-.00149	-.00347	-.00171
23.813	.00000	.00134	-.00328	-.00211
27.853	.00000	-.00174	-.00361	-.00187
30.722	.00000	-.00249	-.00360	-.00212
GRADIENT	.00000	-.00021	-.00008	-.00007

AMES 3.5-163 CASE (B19C7N4F5) (M07E25) (V7R5) (YBY009) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0190				

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 2.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
23.830	.00000	.00831	-.00115	-.00001
27.055	.00000	.01131	-.00079	-.00028
29.847	.00000	.01344	-.00045	-.00050
33.985	.00000	.01549	-.00104	-.00105
38.974	.00000	.01667	-.00274	-.00103
43.730	.00000	.02153	-.00081	-.00015
48.936	.00000	.02260	-.00319	-.00084
51.001	.00000	.02477	-.00265	-.00108
GRADIENT	.00000	.00055	-.00008	-.00002

AMES 3.5-163 OA58 (B19C7M4F5) (W107E23) (V7R5) (YBY010) (15 APR 74)

REFERENCE DATA

SREF = .6090 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 2.06 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.981	.00000	-.00424	-.00006	.00031
5.932	.00000	-.00320	-.00015	-.00069
10.726	.00000	.00007	-.00042	.00013
15.818	.00000	.00353	-.00018	-.00024
20.523	.00000	.00521	.00015	-.00024
25.461	.00000	.00721	-.00043	-.00102
27.520	.00000	.00821	-.00212	-.00125
30.539	.00000	.00975	-.00157	-.00004
35.529	.00000	.01453	-.00005	-.00185
40.667	.00000	.01776	-.00111	-.00137
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B19C7M4F5) (W107E23) (V7R5) (YBY011) (15 APR 74)

REFERENCE DATA

SREF = .6090 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0500 IN. ZMRP = 6.0000 W.L.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.450	.00000	-.01100	-.00090	.00097
.678	.00000	-.01084	-.00109	.00074
3.755	.00000	-.00928	-.00111	.00010
6.816	.00000	-.01015	-.00162	-.00010
9.730	.00000	-.00843	-.00117	.00004
13.718	.00000	-.00570	-.00126	-.00051
17.767	.00000	-.00516	-.00251	-.00078
20.863	.00000	-.00400	-.00292	-.00090
23.879	.00000	-.00092	-.00332	-.00082
27.986	.00000	.00039	-.00308	-.00141
30.844	.00000	.00006	-.00275	-.00161
GRADIENT	.00000	.00028	-.00003	-.00014

AMES 3.5-163 OA58 (B19C7W4F5) (W107E23) (V7R5) (YBY013) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 2.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
23.798	.00000	.00647	-.00385	.00038
26.931	.00000	.00852	-.00136	-.00006
29.736	.00000	.01145	-.00217	-.00033
33.894	.00000	.01514	-.00214	-.00073
38.675	.00000	.01725	-.00225	-.00098
43.721	.00000	.02210	-.00198	-.00030
48.887	.00000	.02586	-.00221	-.00129
51.056	.00000	.02612	-.00294	-.00066
GRADIENT	.00000	.00071	-.00005	-.00004

AMES 3.5-163 OA58 (B19C7W4F5) (W107E23) (V7R5) (YBY013) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.79 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.981	.00000	-.00377	-.00061	.00036
5.962	.00000	-.00319	-.00069	.00025
10.706	.00000	-.00116	-.00203	-.00029
15.852	.00000	.00206	-.00134	-.00050
20.571	.00000	.00571	-.00090	-.00075
23.521	.00000	.00807	-.00137	-.00102
27.556	.00000	.00894	-.00126	-.00016
30.669	.00000	.00873	-.00215	-.00243
35.657	.00000	.01411	-.00358	-.00025
40.833	.00000	.01883	-.00243	-.00422
GRADIENT	.00000	.00000	.00000	.00000

DATE 15 APR 74

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B19C7W4F5) (W107E23) (V7R5) (YBYD14) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.05 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	13.750	SPOBRK =	54.920
RUDDER =	.000		

RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.427	.00000	-.00877	-.00095	.00048
.624	00000	-.00987	.00012	.00020
3.733	.00000	-.01168	-.00235	.00014
6.860	.00000	-.00907	-.00112	-.00002
9.773	.00000	-.00938	-.00064	.00028
13.692	.00000	-.00642	-.00261	-.00046
17.776	.00000	-.00502	-.00165	-.00111
20.923	.00000	-.00380	-.00285	-.00109
23.997	.00000	-.00349	-.00344	-.00143
27.962	.00000	-.00199	-.00221	-.00188
30.829	.00000	-.00186	-.00408	-.00190
GRADIENT	.00000	-.00047	-.00023	-.00008

AMES 3.5-163 OA58 (B19C7W4F5) (W107E23) (V7R5) (YBYD15) (15 APR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	-14.250	SPOBRK =	54.920
RUDDER =	.000		

RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
2.094	.00000	-.00562	-.00104	.00002
6.029	.00000	-.00511	-.00066	-.00004
10.778	.00000	-.00151	-.00028	-.00056
15.903	.00000	.00121	-.00120	-.00053
20.586	.00000	.00415	-.00067	-.00123
23.491	.00000	.00668	-.00024	-.00128
27.514	.00000	.00772	-.00093	-.00154
30.617	.00000	.00908	-.00138	-.00225
35.483	.00000	.01272	.00076	-.00272
40.681	.00000	.01777	-.00071	-.00326
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7H4F5) (M103E22) (V7R5) (YBY016) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	8.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	-14.250	SPOBRK =	54.980
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.256	24.109	.00000	.00002	-.00238	-.00087
5.256	27.264	.00000	.00321	-.00125	-.00235
5.256	30.030	.00000	.00143	-.00164	-.00132
5.256	34.070	.00000	.00112	-.00306	-.00104
5.255	39.021	.00000	.01097	-.00090	-.00499
5.255	43.855	.00000	.00883	-.00273	-.00252
5.255	49.009	.00000	.01232	-.00499	.00006
5.255	52.933	.00000	.01612	-.00212	-.00431
	GRADIENT	.00000	.00054	-.00005	-.00005

RUN NO. 0/ 0 RN/L = 1.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.320	27.401	.00000	.00668	-.00091	-.00070
7.320	30.070	.00000	.00123	-.00175	-.00058
7.320	34.106	.00000	.00362	-.00162	-.00112
7.320	39.024	.00000	.00624	-.00174	-.00230
7.320	43.800	.00000	.00772	-.00276	-.00123
7.320	48.890	.00000	.01354	-.00253	-.00138
7.320	52.905	.00000	.01218	-.00322	-.00348
	GRADIENT	.00000	.00038	-.00008	-.00008

AMES 3.5-163 OA58 (B17C7N4F5) (W103E22) (V7R5) (YBYD17) (19 MAR 74)

REFERENCE DATA

SREF =	.8090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.010		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
2.000	.00000	-.00051	-.00057	-.00021
6.025	.00000	-.00231	-.00092	-.00024
10.901	.00000	.00261	-.00121	-.00032
15.874	.00000	.00412	-.00164	-.00101
20.559	.00000	.00614	-.00160	-.00105
23.545	.00000	.00812	-.00070	-.00083
27.549	.00000	.01045	-.00019	-.00173
30.613	.00000	.00823	-.00237	-.00120
40.726	.00000	.01626	.00002	-.00446
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7N4F5) (W103E22) (V7R5) (YBYD18) (29 MAR 74)

REFERENCE DATA

SREF =	.8090 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.68 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.355	.00000	-.00940	-.00031	.00017
.711	.00000	-.00926	-.00056	-.00040
3.863	.00000	-.00791	-.00121	-.00054
8.890	.00000	-.00913	-.00104	-.00012
9.749	.00000	-.00825	-.00213	-.00086
13.692	.00000	-.00652	-.00306	-.00042
17.708	.00000	-.00433	-.00241	-.00102
20.865	.00000	-.00340	-.00294	-.00134
23.907	.00000	-.00086	-.00171	-.00126
28.070	.00000	-.00082	-.00256	-.00130
30.611	.00000	-.00046	-.00264	-.00209
GRADIENT	.00000	.00024	-.00015	-.00011

AMES 3.5-163 OAS6 (B17C7N4F5) (M103E22) (V7R5) (YBY019) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0130		

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
SDFLAP =	-14.250	SPOBRK =	54.920
RUDDER =	.000		

RUN NO. 0/ 0 RN/L = 1.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
5.256	28.016	.00000	-.00293	-.00115	-.00134
5.256	31.893	.00000	-.00121	-.00204	-.00126
5.256	34.997	.00000	.00149	-.00144	-.00107
5.256	37.911	.00000	.00318	-.00082	-.00172
5.256	40.785	.00000	.00484	-.00142	-.00224
5.256	43.717	.00000	.00636	-.00279	-.00181
5.256	46.602	.00000	.01056	-.00266	-.00149
5.257	53.976	.00000	.01273	-.00300	-.00266
	GRADIENT	.00000	.00064	-.00007	-.00004

RUN NO. 0/ 0 RN/L = 1.61 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CY	CYN	CBL
7.320	28.167	.00000	.00090	-.00198	-.00038
7.320	32.021	.00000	.00367	-.00048	-.00026
7.320	35.144	.00000	.00367	-.00115	-.00190
7.320	37.991	.00000	.00655	-.00206	-.00144
7.320	40.842	.00000	.01182	-.00067	-.00188
7.320	43.843	.00000	.01157	-.00185	-.00145
7.320	46.904	.00000	.01425	-.00278	-.00059
7.320	54.026	.00000	.02044	-.00222	-.00158
	GRADIENT	.00000	.00071	-.00005	-.00003

DATE 15 APR 74 TABULATED SOURCE DATA FOR OA56 (ARC 3.5-163)

AMES 3.5-163 OA56 (B17C7M4F5) (M103E22) (V7R5) (YBY020) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0150				

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 2.04 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.995	.00000	-.00360	-.00018	-.00005
6.013	.00000	-.00503	-.00167	-.00009
10.735	.00000	.00028	-.00038	.00007
15.695	.00000	.00311	-.00154	-.00038
20.573	.00000	.00814	-.00138	-.00096
23.563	.00000	.00636	-.00210	-.00098
27.541	.00000	.01017	.00008	-.00161
30.659	.00000	.01232	-.00120	-.00025
40.754	.00000	.01542	-.00371	-.00228
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA56 (B17C7M4F5) (M103E22) (V7R5) (YBY021) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.		
LREF =	7.1220 IN.	YMRP =	.0000 IN.		
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.		
SCALE =	.0150				

PARAMETRIC DATA

BETA =	.000	ELEVON =	-44.000
BDFLAP =	-14.250	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	BETA	CY	CYN	CBL
-2.313	.00000	-.01186	-.00099	.00110
.686	.00000	-.01001	-.00063	.00044
3.604	.00000	-.00988	-.00062	-.00006
8.982	.00000	-.01021	-.00148	.00025
9.780	.00000	-.00801	-.00122	-.00040
13.620	.00000	-.00874	-.00335	-.00042
19.868	.00000	-.00577	-.00346	-.00051
23.889	.00000	-.00167	-.00270	-.00111
28.901	.00000	-.00195	-.00321	-.00122
30.786	.00000	.00067	-.00196	-.00136
GRADIENT	.00000	.00035	.00003	-.00019

DATE 15 APR 74

TABULATED SOURCE DATA FOR OA58 (ARC 3.5-163)

AMES 3.5-163 OA58 (B17C7H4FS) (M03E22) (V7R5)

(YBY022) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	11.000
BDFLAP =	13.750	SPOSRK =	54.920
RUDDER =	.000		

RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.380

ALPHA	BETA	CY	CYN	CBL
24.368	.00000	.00372	-.00156	.00059
27.292	.00000	.00293	-.00273	.00045
29.953	.00000	.00474	-.00096	-.00057
34.055	.00000	.00799	-.00150	-.00097
38.947	.00000	.00808	-.00453	.00086
43.780	.00000	.01240	-.00378	.00047
48.616	.00000	.01580	-.00467	.00006
52.854	.00000	.01990	-.00476	.00065
GRADIENT	.00000	.00037	-.00014	.00001

AMES 3.5-163 OA58 (B17C7H4FS) (M03E22) (V7R5)

(YBY023) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	11.000
BDFLAP =	13.750	SPOSRK =	54.920
RUDDER =	.000		

RN/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.976	.00000	-.00093	-.00075	.00143
5.971	.00000	-.00136	-.00121	.00054
10.679	.00000	.00006	-.00132	.00087
15.796	.00000	.00408	-.00189	.00090
20.572	.00000	.00815	-.00522	-.00040
25.486	.00000	.00367	-.00346	-.00150
27.492	.00000	.00890	-.00336	.00000
30.541	.00000	.01196	-.00380	.00066
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4F5) (M103E22) (V7R5) (YBY024) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BMEF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	11.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.309	.00000	-.00840	-.00083	-.00039
.787	.00000	-.00804	-.00083	-.00021
3.831	.00000	-.00813	-.00161	-.00043
6.911	.00000	-.00834	-.00180	-.00047
9.788	.00000	-.00870	-.00199	-.00051
13.681	.00000	-.00390	-.00163	-.00088
17.747	.00000	-.00344	-.00312	-.00100
20.818	.00000	-.00251	-.00283	-.00087
23.894	.00000	.00048	-.00331	-.00108
27.953	.00000	.00010	-.00369	-.00136
30.718	.00000	.00005	-.00420	-.00011
GRADIENT	.00000	.00304	-.00011	-.00001

AMES 3.5-163 OA58 (B17C7M4F5) (M103E22) (V7R5) (YBY025) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BMEF =	14.0500 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	.000	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.42 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
24.332	.00000	.00822	-.00073	.00048
27.279	.00000	.00868	-.00103	-.00049
30.003	.00000	.00347	-.00255	-.00101
34.093	.00000	.00505	-.00139	-.00105
38.972	.00000	.00704	-.00124	-.00095
43.714	.00000	.01036	-.00347	-.00068
48.826	.00000	.01313	-.00339	-.00045
52.826	.00000	.01625	-.00348	-.00470
GRADIENT	.00000	.00050	-.00009	-.00010

AMES 3.5-163 OA58 (B17C7M4FS) (A103E22) (V7R5) (YBY026) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.07 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
2.011	.00000	-.00060	-.00018	.00047
6.051	.00000	-.00195	-.00090	-.00052
10.824	.00000	-.00053	-.00099	-.00033
15.987	.00000	.00266	-.00115	-.00093
20.573	.00000	.00687	-.00095	-.00107
23.565	.00000	.00685	-.00186	-.00220
27.353	.00000	.00827	-.00187	-.00165
30.545	.00000	.01003	-.00[illegible]2	-.00079
40.724	.00000	.01983	-.0[illegible]496	-.00229
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.5-163 OA58 (B17C7M4FS) (A103E22) (V7R5) (YBY027) (29 MAR 74)

REFERENCE DATA

SREF = .6050 SQ.FT. XMRP = 12.5770 IN.
LREF = 7.1220 IN. YMRP = .0000 IN.
BREF = 14.0900 IN. ZMRP = 6.0000 W.L.
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
BDFLAP = .000 SPDBRK = 54.920
RUDDER = .000

RN/L = 1.70 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
-2.358	.00000	-.00853	-.00077	-.00000
.677	.00000	-.00978	-.00138	-.00030
3.709	.00000	-.00828	-.00196	-.00065
7.070	.00000	-.01089	-.00260	-.00067
9.738	.00000	-.00801	-.00231	.00018
13.767	.00000	-.00714	-.00224	-.00113
17.759	.00000	-.00383	-.00240	-.00097
20.865	.00000	-.00380	-.00263	-.00147
23.906	.00000	-.00277	-.00340	-.00135
27.961	.00000	-.00096	-.00368	-.00196
30.782	.00000	-.00023	-.00337	-.00226
GRADIENT	.00000	.00004	-.00016	-.00011

TABULATED SOURCE DATA FOR CASE (ARC 3.5-163)

AMES 3.5-163 CASE (B17C7N4F5) (L403E22) (V7R5) (YBY028) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.320

ALPHA	BETA	CY	CYN	CBL
24.363	.00000	.00178	-.00149	.00054
27.238	.00000	.00306	-.00180	-.00053
29.964	.00000	.00504	-.00069	-.00024
34.021	.00000	.00507	-.00107	-.00065
38.865	.00000	.00806	-.00231	-.00139
43.788	.00000	.01280	-.00263	-.00153
48.770	.00000	.01671	-.00375	.00031
52.784	.00000	.01601	-.00417	-.00186
GRADIENT	.00000	.00060	-.00013	-.00004

AMES 3.5-163 CASE (B17C7N4F5) (L403E22) (V7R5) (YBY029) (29 MAR 74)

REFERENCE DATA

SREF =	.6050 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0900 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BDFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 10.290

ALPHA	BETA	CY	CYN	CBL
1.940	.00000	-.00306	-.00026	-.00000
5.977	.00000	-.00211	-.00060	-.00012
10.718	.00000	-.00101	-.00084	-.00013
15.836	.00000	.00498	-.00121	-.00053
20.980	.00000	.00498	-.00187	-.00074
25.547	.00000	.00677	-.00136	-.00133
27.540	.00000	.00966	-.00188	-.00129
30.689	.00000	.01067	-.00125	-.00164
40.785	.00000	.01721	-.00221	-.00317
GRADIENT	.00000	.00000	.00000	.00000

AMES 3.8-163 OAS8 (B17C7N4FS) (M103E22) (V7R5) (YBY030) (29 MAR 74)

REFERENCE DATA

SREF =	.6030 SQ.FT.	XMRP =	12.5770 IN.
LREF =	7.1220 IN.	YMRP =	.0000 IN.
BREF =	14.0800 IN.	ZMRP =	6.0000 W.L.
SCALE =	.0150		

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
BOFLAP =	13.750	SPDBRK =	54.920
RUDDER =	.000		

RN/L = 1.65 GRADIENT INTERVAL = -5.00/ 5.00

MACH = 7.30

ALPHA	BETA	CY	CYN	CBL
-2.305	.00000	-.00025	-.00038	.00012
.675	.00000	-.00053	-.00126	-.00022
3.624	.00000	-.00080	-.00160	-.00038
6.696	.00000	-.00035	-.00179	-.00010
9.774	.00000	-.00096	-.00148	-.00060
13.640	.00000	-.00508	-.00237	-.00047
17.766	.00000	-.00137	-.00233	-.00111
20.851	.00000	-.00[illegible]	-.00261	-.00113
23.949	.00000	-.00091	-.00294	-.00184
27.965	.00000	-.00076	-.00357	-.00066
30.878	.00000	.00185	-.00245	-.00242
GRADIENT	.00000	.00010	-.00011	-.00008